NOTICE

The total fees for Order No. 2000-90 and Order No. 2001-96 is currently

$3,437.00

The State Water Resources Control Board adopted revisions to California Code of Regulations, Title 23, Section 2200, Annual Fee Schedules. The revisions increased the fees for waste discharge requirements. For Order No. 2000-90 and Order No. 2001-96, the total fee includes a $2,900.00 application fee (same as the annual fee) and $537.00 water quality monitoring surcharge fee.

The entire fee must be submitted with your application in order to consider the application complete. Failure to submit a complete application may delay the processing of your application and may delay your project.

More information regarding fees may be found at the State Water Resources Control Board website:
www.swrcb.ca.gov

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 2001-96
NPDES NO. CAG919002

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER EXTRACTION WASTE DISCHARGES FROM CONSTRUCTION, REMEDIATION, AND PERMANENT GROUNDWATER EXTRACTION PROJECTS TO SURFACE WATERS WITHIN THE SAN DIEGO REGION EXCEPT FOR SAN DIEGO BAY

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ORDER NO. 2001-96

MONITORING AND REPORTING PROGRAM NO. 2001-96

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On June 13, 1996, this Regional Board adopted Order No. 96-41, NPDES Permit No.CAG919002, "General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges From Construction and Remediation Projects to Surface Waters within the San Diego Region, Except for San Diego Bay".

2. 40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same type of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.

3. Existing and proposed discharges of groundwater extraction waste to surface waters in the San Diego Region from construction groundwater extraction, foundation groundwater extraction, and groundwater extraction related to cleanup projects (collectively groundwater extraction waste discharges):

    a. Result from similar operations (all involve extraction and discharge of groundwater);

    b. Are the same type of wastes (all are groundwater containing or potentially containing petroleum hydrocarbons, solvents, or other pollutants);

    c. Require similar effluent limitations for the protection of the beneficial uses of similar receiving waters;

    d. Require similar monitoring; and

    e. Are more appropriately regulated under a general permit rather than individual permits.

    Discharges of extracted groundwater to San Diego Bay, are regulated under Order No. 2000-90 (NPDES No. CAG919001), *General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto.*

4. Extracted Groundwater may contain pollutants which may be found in groundwaters as a result of decomposition of organic materials (e.g., hydrogen sulfide), leaking underground storage tanks and fuel lines, surface spills, sewage, past use of liquid waste impoundments, or the potential presence of nutrients (phosphorus and nitrogen compounds).

5. The *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan), adopted on July 23, 1997, identifies beneficial uses and establishes water quality objectives, general requirements for management of waste discharged to the ocean, quality requirements for waste discharges, discharge prohibitions, and general provisions for state ocean waters to be protected. Beneficial uses of the bays and estuaries in the San Diego Region are similar to those of the Ocean Waters of the State.

6. If a lagoon or estuary is not open to the Pacific Ocean and consists of fresh water, discharges shall comply with the requirements established in this Order for discharges to inland surface waters.

7. The *Comprehensive Water Quality Control Plan Report, San Diego Basin (9)* (Basin Plan), adopted on September 8, 1994, and subsequently approved by the State Water Resources Control Board (SWRCB) on December 13, 1994, designates beneficial uses, narrative and numerical water quality objectives, and prohibitions which are applicable to the groundwater extraction waste discharges regulated under this Order. The Basin Plan contains prohibitions applicable to surface waters (see Attachment A).

8. On March 2, 2000, the SWRCB adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy). The Policy implements the provisions promulgated by the U.S. Environmental Protection Agency (U.S. EPA) in the California Toxics Rule (CTR). Criteria for 126 priority pollutants are established by the CTR.

9. Section 5.3 of the Policy states that, where site-specific conditions in individual water bodies or watersheds differ sufficiently from statewide conditions and those differences cannot be addressed through other provisions of this policy, the SWRCB may, in compliance with the California Environmental Quality Act (CEQA), subsequent to a public hearing, and with the concurrence of the U.S. EPA, grant an exception to meeting a priority pollutant criterion/objective or any other provision of this Policy where the SWRCB determines:

    a. The exception will not compromise protection of enclosed bay, estuarine, and inland surface waters for beneficial uses; and

    b. The public interest will be served.

10. Pursuant to Section 5.3 of the Policy, the Regional Board, after compliance with the California Environmental Quality Act (CEQA), may allow short-term or seasonal exceptions from meeting the priority pollutant criteria/objectives if determined to be necessary to implement control measures either:

    a. For resource or pest management (i.e., vector or weed control, pest eradication, or fishery management) conducted by public entities to fulfill statutory requirements, including, but not limited to, those in the California Fish and Game, Food and Agriculture, Health and Safety, and Harbors and Navigation codes; or

    b. Regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code. Categorical exceptions may also be granted for draining municipal storm water conveyances for cleaning or maintenance, or for draining water treatment facilities for cleaning or maintenance.

11. On April 28, 2000, the USEPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California to protect human health and the environment. The CTR regulations, codified in 40 CFR 131.38, establish numeric criteria for water quality standards for priority toxic pollutants for the State of California.

12. In order to protect the beneficial uses of receiving waters from excessive concentrations of pollutants as a result of groundwater extraction waste discharges, this Order does not provide for a mixing zone or a zone of initial dilution except when the discharge is to the surf zone. This Order allows initial dilution of 3 in a surf zone.

13. In order to minimize potential impacts of discharges of groundwater containing pollutants on the beneficial uses of surface waters, this Order contains effluent pollutant concentration limitations based on criteria for the protection of aquatic species, the protection of human health from consumption of aquatic organisms, maximum contaminant levels (MCL) for potable drinking water supplies, and/or best available technology economically achievable (BAT)[2] for the removal of organic pollutants commonly found in petroleum-and solvent-contaminated groundwaters.

14. Effluent limitations for volatile and base/neutral compounds are equal to the practical quantitation level (PQL) if the PQL is lower than water quality objectives for the protection of beneficial uses (such compounds will essentially be non-detectable in discharges of groundwater extraction wastes). When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCB's) concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the Method Detection Limit (MDL) for that parameter.

15. Any discharge of untreated groundwater to a surface water may cause or contribute to excursions above narrative water quality objectives contained in the Ocean Plan and/or Basin Plan as a result of the potential discharge of petroleum related compounds, solvents, and metals.

16. Since water quality criteria for many of the petroleum hydrocarbon compounds have not been proposed or established by the SWRCB or USEPA, this Order requires monitoring of groundwater discharged to surface waters using "indicator constituents"[3] for petroleum related compounds. This Order establishes effluent limitations and monitoring requirements for BTEX and TPH which will ensure that volatile petroleum related compounds[4] will be removed from the waste stream. This Order also establishes effluent limitations and monitoring requirements for indicator constituents of diesel fuels (TPH - diesel)[5] commonly found in polluted groundwaters.

17. It has been demonstrated that volatile organic compounds (e.g., benzene, toluene, ethylbenzene, xylene, etc.) and many other organic pollutants in groundwater can be reduced to less than current analytical detection limits (0.5 to 10 micrograms per liter (μg/L) in groundwater using available standard treatment technologies[6]. Thus, best available technology economically achievable for the removal of organic compounds is the basis for effluent limitations for BTEX and other volatile hydrocarbons, and base/neutral compounds, in Discharge Specifications B.1, B.2, B.3, and B.4 of this Order.

18. In establishing effluent limitations based on BAT, the following factors were taken into consideration:

    a. The appropriate technology for the category or class of which the discharger is a member;

    b. The age of equipment and facilities involved;

c. The process employed;

d. The engineering aspects of the application of various types of control techniques;

e. Process changes;

f. The cost of achieving such effluent reduction;

g. Non-water quality environmental impact (including energy requirements); and

h. Known and potential groundwater contaminants in the San Diego region.

19. The Porter-Cologne Water Quality Control Act (January 1, 2000), Section 13272.1 and Section 13285, address discharges of MTBE. The California Department of Health Services (DOHS) last update (March 9, 2000) of California's Maximum Contaminant Levels for MTBE states the following:

As established by the DOHS, the primary MCL is 13 µg/L MTBE and the secondary MCL is 5 µg/L.

20. Enrollees under this general permit that are in close proximity of the ocean, a bay, harbor, lagoon or estuary, may encounter saline groundwater, in which case the use of EPA Method 1638, and EPA Method 1640 (Clean Technologies) would be appropriate for the analysis of metals.

21. The daily maximum discharge flowrate limitation for each discharge will be specified in the discharge Enrollment Letter from the Regional Board. Mass emission rate limitations shall be determined using the discharge flowrate and effluent concentration limitations specified in Discharge Specifications B.1, B.2, B.3, and B.4, of this Order.

22. Pursuant to 40 CFR 131.12 and SWRCB Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (collectively "antidegradation policies"), the Regional Board shall ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies.

23. The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of the State and Federal "antidegradation" policies.

24. Discharge criteria established under Sections 301, 302, 304, 306, 307, and 403 of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), are applicable to discharges of groundwater extraction waste.

25. This Order does not preempt or supersede the authority of other State or local agencies to prohibit, restrict, or control the discharge of groundwater extraction waste discharges from facilities subject to this permit in any manner subject to their authority. This Order does not apply to discharges regulated by a municipal stormwater permit. Discharges of groundwater via a storm drain conveyance system during dry weather has the potential to carry pollutants typically found in urban runoff (i.e.: coliform, heavy metals, pesticides, herbicides, oil & grease, petroleum products), that would normally remain in the storm drain system until the first significant rain event of the wet season, to a water of the state, thus creating a nuisance condition.

26. This Order does not apply to small dewatering sumps (utility vaults) necessary to protect public utilities (e.g., electrical, telephone, municipal, sewer pump stations, and other utilities vital to the public) and which have intermittent discharges. Utility vault discharges are regulated by State Water Resources Control Board General NPDES Permit No. 96-12-DWQ.

27. Pursuant to Section 402 of the CWA, and amendments thereto, this Order shall serve as a general NPDES permit for groundwater extraction waste discharges to surface waters, other than San Diego Bay, within the San Diego Region for those so authorized[7] by the Regional Board.

28. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:

    a. Beneficial uses to be protected and the quality objectives reasonably required for that purpose;

    b. Other waste discharges;

    c. The need to prevent nuisance;

    d. Past, present, and probable future beneficial uses of the waters under consideration;

    e. Environmental characteristics of the waters under consideration;

    f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;

    g. Economic considerations;

    h. The need for developing housing within the region;

    i. The need to develop and use recycled water.

29. The issuance of this general permit for the discharge of groundwater extraction waste to surface waters in the San Diego Region is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (Public Resource Code, Division 13, Chapter 3, Section 21000 et seq.) in accordance with the California Water Code, Section 13389.

30. The Regional Board has notified all known interested parties of its intent to reissue a general NPDES permit for the discharge of groundwater extraction waste to surface waters in the region.

31. The Regional Board has, at a public meeting, heard and considered all comments pertaining to the discharge of groundwater extraction waste to surface waters in the region.

32. All groundwater extraction waste discharges currently regulated by Regional Board Order No. 96-41 shall be regulated under the terms and conditions of this Order.

IT IS HEREBY ORDERED, that each authorized discharger (hereinafter Enrollee), in order to meet the

provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of groundwater to surface waters is prohibited unless authorized, exempted, or issued an individual NPDES permit by the Regional Board.

2. The discharge of wastes to areas designated by the SWRCB, and recommended by the Regional Board, as areas of special biological significance is prohibited. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.

3. The addition of pollutants to extracted groundwater to be discharged to surface waters is prohibited. The only exception to this prohibition is that chemicals (i.e.: chlorine) may be added to extracted groundwater to control biofouling in treatment systems, provided that extracted groundwater discharged to surface waters meets the effluent limitations for such chemicals established by this Order and in the discharge Enrollment Letter issued by the Regional Board.

4. The discharge of groundwater extraction waste to surface waters from permanent[a] groundwater extraction operations in basins with designated beneficial uses of industrial, agricultural, or municipal and domestic supply are prohibited unless such extracted groundwater (not used beneficially) is used beneficially (*Application Requirements,* Section F.17, and F.18). If the Enrollee of such extracted groundwater wishes to discharge to surface waters, it shall be the responsibility of the Enrollee to obtain an individual NPDES Permit for the discharge.

5. The discharge of groundwater extraction waste to enclosed bays[1], harbors, lagoons, and estuaries, or tributaries thereto, is prohibited unless the Enrollee demonstrates to the satisfaction of the Regional Board that alternative disposal sites (e.g., surf zone) are not practicable as required in *Application Requirements,* Sections F.17, and F.18.

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[a] This prohibition does not apply to small dewatering sumps, necessary to protect public utilities (e.g., electrical, telephone, municipal sewer pumping stations, and other utilities vital to the public), and which have intermittent discharges. These discharges will be regulated, where necessary, under separate NPDES permits.

"Permanent" groundwater extraction operations shall refer to extraction operations for structures which 1) are not designed or constructed to withstand hydrostatic pressure or do not preclude infiltration of groundwater, and, 2) require removal of groundwater to prevent water infiltration to the structure(s). For purposes of this Order, "new permanent" groundwater extraction operations refers to extraction operations which are initiated after the date of adoption of this Order in cases in which the following conditions apply:

1. If the project proponent has not submitted a complete Report of Waste Discharge (RWD) to the Regional Board for a proposed discharge of extraction operation prior to adoption of this Order, the discharge is considered a discharge from a new permanent groundwater extraction operation and is prohibited unless the groundwaters are used beneficially, unless:

2. Prior to adoption of this Order, the project proponent has applied for the necessary building permits from the proper agencies.

6. The discharge of groundwater extraction waste to any surface water from a groundwater extraction project after the date of completion of construction of structures requiring groundwater extraction, or from a groundwater remediation operation after the date the groundwater has been remediated to the satisfaction of the Regional Board, is prohibited.

7. The discharge of groundwater in excess of the flowrate specified in each Enrollee's Enrollment Letter is prohibited unless the Enrollee obtains a revised discharge Enrollment Letter authorizing an increased flowrate.

8. No individual pesticide or combination of pesticides shall be present in the water column, sediments, or biota at concentration(s) that adversely affect beneficial uses. Pesticides shall not be present at levels which will bioaccumulate in aquatic organisms to levels which are harmful to human health, wildlife or aquatic organisms.

   Water designated for use as domestic or municipal[21] supply (MUN) (drinking water) shall not contain concentrations of pesticides in excess of the maximum contaminant levels specified in California Code of Regulations, Title 22, Table 64444-A of Section 64444 (Organic Chemicals). (See Basin Plan Chapter 3-13).

9. Compliance with the waste discharge prohibitions contained in the Basin Plan and listed in Attachment A hereto is a condition of this Order.

10. Compliance with Discharge Prohibitions as stated in the 1974 Bays and Estuaries Policy (Attachment C) is required as a condition of this Order.

11. The discharge of groundwater extraction waste to a stormwater conveyance system without notifying and receiving authorization from the agency having jurisdiction over the stormwater conveyance system is prohibited.

12. The discharge of wastes tributary or directly to areas designated as being of special biological significance by the SWRCB is prohibited. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.

B. DISCHARGE SPECIFICATIONS[8]

1. DISCHARGES TO BAYS AND HARBORS

The discharge of groundwater extraction waste to Mission Bay, Oceanside Harbor, Del Mar Boat Basin, or Dana Point Harbor shall not contain pollutants in excess of the following effluent limitations:

Constituent	Unit	6-Month Median	AMEL[36]	Daily Maximum	Instantaneous Maximum	Basis[9]
Settleable Solids	ml/L	---	1	---	0.2	BPJ[10]
Total Suspended Solids	mg/L	---	30	---	50	"
Hydrogen Sulfide	µg/L	---	2	4	10	BPJ[10]
Constituent	Unit	6-Month Median	AMEL[36]	Daily Maximum	Instantaneous Maximum	Basis[9]

Total Residual Chlorine (TRC)[12]	µg/L	2	---	8	60	OP[11]
Ammonia (as nitrogen)	µg/L	600	---	2,400	6,000	"
pH	Units	Within the limits of 6.0 to 9.0 at all times.				OP[11]
Xylene	µg/L	---	---	---	5	BPJ/BAT[13]
Total Petroleum Hydrocarbons	mg/L	---	---	---	0.5	BPJ/BAT[13]
Phenolic Compounds (Non-chlorinated)	µg/L	30	---	120	300	BPJ/BAT[13]
Chlorinated Phenolics	µg/L	1	---	4	10	"
Endosulfan	ng/L	9	---	18	27	OP[11]
HCH[29]	ng/L	4	---	8	12	"
Tributyltin	µg/L	---	0.005	---	---	OP[11]
Dichloromethane	µg/L	---	---	---	5	"
Halomethanes	µg/L	---	---	---	5	BPJ/BAT[13]
PAHs	ng/L	---	8.8	---	---	"
TCDD Equivalents	pg/L	---	0.004	---	---	OP[11]
Acute Toxicity	TUa	---	---	---	0.59	BPJ[10]
Chronic Toxicity	TUc	---	---	1	---	OP[11]
Base/Neutrals[16]	µg/L	---	---	---	10	BPJ/BAT[13]
Dissolved Oxygen	mg/L	Shall not be less than 5 at anytime.				BPJ[10]
Turbidity	NTU	Shall not exceed the turbidity of the receiving water.				
Total Coliform	MPN/100mL	---	---	---	1000	BPJ/BAT[13]
Fecal Coliform	MPN/100mL	---	---	---	200	BPJ/BAT[13]
126 Priority Pollutants (Including metals)*	40 CFR 131.38 - Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.					Attachment D

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter ng/L = nanograms per liter
pg/L = picograms per liter TUa = acute toxicity units TUc = chronic toxicity units NTU = Nephelometric Turbidity Units

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed in the matrix correspond to a total hardness of 100 mg/L.

2. DISCHARGES TO LAGOONS/ESTUARIES

The discharge of groundwater extraction waste discharges to saline[17] lagoons (only Buena Vista Lagoon is fresh water) and estuaries of the region shall not contain pollutants in excess of the following effluent limitations:

Constituent	Unit	6-Month Median	AMEL[36]	Daily Maximum	Instantaneous Maximum	Basis
Total Nitrogen[18]	mg/L	1.0			2.0	BPJ[10]
Total Phosphorus[18]	mg/L	0.1			0.2	"
Settleable Solids	ml/L	---	0.1	---	50	BPJ[10]
Hydrogen Sulfide	µg/L	---	2	4	10	"
Total Residual Chlorine (TRC)[12]	µg/L	2	---	8	60	OP[11]
Ammonia (as nitrogen)	µg/L	600	---	2,400	6,000	"
pH	Units	Within the limits of 7.0 to 8.5 at all times.				"
Xylene	µg/L	---	---	---	5	"

Constituent	Unit	6-Month Median	AMEL[36]	Daily Maximum	Instantaneous Maximum	Basis
Total Petroleum						

Hydrocarbons	mg/L	---	---	---	0.5	OP[11]
Phenolic Compounds (Non-chlorinated)	µg/L	30	---	120	300	"
Chlorinated Phenolics	µg/L	1	---	4	10	"
Tributyltin	µg/L	---	0.005	---	---	OP[11]
Acute Toxicity	TUa	---	---	---	0.59	BPJ[10]
Chronic Toxicity	TUc	---	---	1	---	OP[11]
Base/Neutrals[16]	µg/L	---	---	---	10	" "
Dissolved Oxygen	mg/L	Shall not be less than 5 at anytime.				BPJ[10]
Turbidity	NTU	Shall not exceed the turbidity of the receiving water.				"
Total Coliform	MPN/100mL	---	---	---	1000	BPJ[10]
Fecal Coliform	MPN/100mL	---	---	---	200	"
126 Priority Pollutants (Including metals)*	40 CFR 131.38 - Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.					Attachment D

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter ng/L = nanograms per liter
pg/L = picograms per liter TUa = acute toxicity units TUc = chronic toxicity units NTU = Nephelometric Turbidity Units

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed in the matrix correspond to a total hardness of 100 mg/L.

3. DISCHARGES TO THE SURF ZONE[20]

The discharge of groundwater extraction waste to the surf zone (3:1 dilution factor) shall not contain pollutants in excess of the following effluent limitations:

Constituent	Unit	6-Month Median	30-Day Average[37]	Daily Maximum	Instantaneous Maximum	Basis[9]
Settleable Solids	ml/L	---	1	---	2	BPJ[10]
Total Suspended Solids	mg/L	---	60	---	100	"
Total Residual Chlorine[12]	µg/L	8	---	32	240	OP[11]
Ammonia (as nitrogen)	µg/l	2400	---	9600	24000	OP[11]
pH	units	Within the limits of 6.0 to 9.0 at all times.				OP[11]
Benzene	µg/L	---	---	---	5	BPJ/BAT[13]
Ethylbenzene	µg/L	---	---	---	5	BPJ/BAT[13]
Toluene	µg/L	---	---	---	5	" "
Xylene	µg/L	---	---	---	5	" "
Total Petroleum Hydrocarbons	mg/L	---	---	---	0.5	" "
Arsenic	µg/L	23	---	119	311	OP[11]
Cadmium	µg/L	4	---	16	40	"
Chromium (hexavalent)[14]	µg/L	8	---	32	80	"
Copper	µg/L	6	---	42	114	"
Lead	µg/L	8	---	32	80	"
Mercury	µg/L	0.16	---	0.64	1.6	"
Nickel	µg/L	20	---	80	200	OP[11]
Silver	µg/L	2.32	---	10.7	28	"
Zinc	µg/L	56	---	296	776	"
Cyanide	µg/L	4	---	16	40	"

Constituent	Unit	6-Month Median	30-Day Average[37]	Daily Maximum	Instantaneous Maximum	Basis[9]
Phenolic Compounds (Non-chlorinated)	µg/L	120	---	480	1200	OP[11]

Constituent	Unit	6-Month Median	30-Day Average[37]	Daily Maximum	Instantaneous Maximum	Basis[9]
Chlorinated Phenolics	µg/L	4	---	16	40	"
1,1,2,2-tetrachloroethane	µg/L	---	---	---	5	BPJ/BAT[13]
Tributyltin	ng/L	---	5.6	---	---	OP[11]
1,1,1-trichloroethane	µg/L	---	---	---	5.0	BPJ/BAT[13]
1,1,2-trichloroethane	µg/L	---	---	---	5.0	" "
Carbon tetrachloride	µg/L	---	3.6	---	---	OP[11]
PCBs[15]	ng/L	---	0.076	---	---	OP[11]
Tetrachloroethylene	µg/L	---	---	---	5	BPJ/BAT[13]
Trichloroethylene	µg/L	---	---	---	5	"
Vinyl chloride	µg/L	---	---	---	5	"
Acute Toxicity	TUa	---	1.5	---	2.5	OP[11]
Chronic Toxicity	TUc	---	---	1	---	"
Base/Neutrals[16]	µg/L	---	---	---	10	BPJ/BAT[13]
Dissolved Oxygen	mg/L	Shall not be less than 5.0 at any time.				BPJ[10]
Turbidity	NTU	Shall not exceed the turbidity of waters outside of the surf zone.				
Total Coliform	MPN/100Ml	---	---	---	1000	"
Fecal Coliform	MPN/100mL	---	---	---	200	"
Selenium	µg/L	60	---	240	600	OP[11]
Endosulfan	ng/L	36	---	72	108	"
Endrin	ng/L	8	---	16	24	"
HCH[29]	ng/L	16	---	32	48	OP[11]
Acrolein	µg/L	---	---	---	10	BPJ/BAT[13]
Antimony	mg/L	---	4.8	---	---	OP[11]
bis(2-chloroethoxy) methane	µg/L	---	---	---	10	BPJ/BAT[13]
bis(2-chloroisopropyl) ether	µg/L	---	---	---	10	" "
Chlorobenzene	µg/L	---	---	---	5	BPJ/BAT[13]
Di-n-butyl phthalate	µg/L	---	---	---	10	" "
Dichlorobenzenes[30]	µg/L	---	---	---	10.0	" "
1,1-dichloroethylene	µg/L	---	---	---	5	" "
Diethyl phthalate	µg/L	---	---	---	10	" "
Dimethyl phthalate	µg/L	---	---	---	10	" "
4,6-dinitro-2-methylphenol	µg/L	---	---	---	10	" "
2,4-dinitrophenol	µg/L	---	---	---	10	" "
Fluoranthene	µg/L	---	---	---	10	" "
Hexachlorocyclopentadiene	µg/L	---	---	---	10	" "
Isophorone	µg/L	---	---	---	10	" "
Nitrobenzene	µg/L	---	---	---	10	" "
Thallium	µg/L	---	56	---	---	OP[11]
Acrylonitrile	µg/L	---	0.40	---	---	"
Aldrin	ng/L	---	0.09	---	---	"
Benzidine	ng/L	---	0.28	---	---	"
Beryllium	ng/L	---	132	---	---	"
bis(2-chloroethyl) ether	µg/L	---	0.18	---	---	"
bis(2-ethylhexyl) phthalate	µg/L	---	---	---	10	BPJ/BAT[13]
Chlordane[31]	ng/L	---	0.09	---	---	OP[11]
Chloroform	mg/L	---	0.52	---	---	OP
DDT[32]	µg/L	---	---	---	10	BPJ/BAT[13]
3,3-dichlorobenzidine	ng/L	---	32.4	---	---	OP[11]

1,2-dichloroethane	µg/L	---	---	---	5	BPJ/BAT[13]
Dichloromethane	µg/L	---	---	---	10	" "
1,3-dichloropropene	µg/L	---	---	---	5	" "
Dieldrin	ng/L	---	0.16	---	---	OP[11]
2,4-dinitrotoluene	µg/L	---	10.4	---	---	OP[11]
1,2-diphenylhydrazine	µg/L	---	0.64	---	---	"
Halomethanes[33]	µg/L	---	---	---	5	BPJ/BAT[13]
Heptachlor[34]	ng/L	---	2.88	---	---	OP[11]
Hexachlorobenzene	ng/L	---	0.84	---	---	"
Hexachlorobutadiene	µg/L	---	---	---	5	BPJ/BAT[13]
Hexachloroethane	µg/L	---	10.0	---	---	OP[11]
N-nitrosodimethylamine	µg/L	---	29.2	---	---	"
N-nitrosodiphenylamine	µg/L	---	10.0	---	---	"
PAHs[35]	ng/L	---	35.2	---	---	OP[11]
TCDD equivalents	pg/L	---	0.015	---	---	"
Toxaphene	ng/L	---	0.84	---	---	OP[11]
2,4,6-trichlorophenol	µg/L	---	1.16	---	---	"

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter ng/L = nanograms per liter
pg/L = picograms per liter TUa = acute toxicity units TUc = chronic toxicity units NTU = Nephelometric Turbidity Units

4. DISCHARGES TO INLAND SURFACE WATERS[a]

The discharge of groundwater extraction waste to inland surface waters (including Buena Vista Lagoon) shall not contain pollutants in excess of the following effluent limitations:

GENERAL CONSTITUENTS

Constituent	Unit	AMEL[36]	Daily Maximum	Instantaneous Maximum	Basis[9]
Settleable Solids	ml/L	0.1	---	0.2	BPJ[10]
Total Suspended Solids	mg/L	30	---	50	"
Percent Sodium	%	---	---	60	BPJ[10]
Total Nitrogen[18]	mg/L	1.0		2.0	"
Total Phosphorus[18]	mg/L	0.1		0.2	"
Methylene Blue Active Substances	mg/L	---	---	0.5	BP[19]
Turbidity	NTU	Shall not exceed the ambient turbidity of the surface water at any time.			BPJ[10]
Fluoride	mg/L	---	---	1.0	BP[19]

Constituent	Unit	AMEL[36]	Daily Maximum	Instantaneous Maximum	Basis[9]
Hydrogen Sulfide	µg/L	2	4	10	BPJ[10]
Total Residual Chlorine (TRC)[12]	µg/L	2	8	10	"
pH	Units	Within the limits of 6.5 and 8.5 at all times.			BP[19]

[a] If the groundwater extraction waste is discharged to an inland surface water tributary to a bay, harbor, lagoon or estuary and the effluent concentration limitation for discharges to bays and harbors or lagoons and estuaries is more stringent than the effluent concentration limitation for discharges to inland surface waters, the discharge shall not contain pollutants in excess of the effluent concentration limitation for a discharge to bays and harbors or lagoons and estuaries. (The discharge shall comply with the more stringent of the two effluent pollutant concentration limitations.)

Acute Toxicity	TUa	---	---	0.59	BPJ[10]
Chronic Toxicity	TUc	---	1	---	"
Dissolved Oxygen	mg/L	Shall not be less than 5.0 at any time in waters with designated warm fresh-water habitat beneficial uses or less than 6.0 in waters with cold fresh water habitat beneficial uses.			BP[19]
Total Coliform	MPN/100mL	---	---	1000	"
Fecal Coliform	MPN/100mL	---	---	200	"

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter ng/L = nanograms per liter
pg/L = picograms per liter TUa = acute toxicity units TUc = chronic toxicity units NTU = Nephelometric Turbidity Units

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed in the matrix correspond to a total hardness of 100 mg/L.

VOLATILES, METALS, PRIORITY POLLUTANTS:

Beneficial Use:	Municipal[21]/Potable Supply Instantaneous			Non-municipal/Non-potable Instantaneous		
Constituent	Unit	Maximum[4]	Basis[5]	Unit	Maximum[4]	Basis[5]
Dibromochloropropane	µg/L	0.2	DOHS[22]	µg/L	0.2	BPJ[6]
Ethylene Dibromide	µg/L	0.02	DOHS[22]	µg/L	0.02	BPJ[6]
Xylene	µg/L	5	BPJ/BAT[10]	µg/L	5	BPJ[6]
Chlorinated Phenolics	µg/L	1	DOHS[22]	µg/L	10	BPJ/BAT[10]
Remaining Base/Neutral Compounds[16]	µg/L	10	BPJ/BAT[10]	µg/L	10	BPJ/BAT[10]
Total Petroleum Hydrocarbons	mg/L	0.5	"	mg/L	0.5	"
Iron**	mg/L	0.3	"	mg/L	0.3	"
Manganese**	mg/L	0.05	"	mg/L	0.05	"
MTBE[***,38]	µg/L	5	DOHS[22]			
126 Priority Pollutants (Including metals)*	40 CFR 131.38 - Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.					Attachment D

Note: ml/L = milliliters per liter mg/L = milligrams per liter µg/L = micrograms per liter TUa = acute toxicity units
TUc = chronic toxicity units

* Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed in the matrix correspond to a total hardness of 100 mg/L.

** For the Mission San Diego (7.11) and Sycamore Canyon (7.12) Hydrographic Subareas, the effluent limitation for iron shall be 1.0 mg/L and the effluent limitation for manganese shall be 1.0 mg/L. Sycamore Canyon Subarea, a portion of the Santee Hydrologic Subarea, includes the watersheds of the following north-south trending canyons: Oak Creek, Spring Canyon, Little Sycamore Canyon, Quail Canyon, and Sycamore Canyon. The Sycamore Canyon Subarea extends eastward from the Mission San Diego HSA to the confluence of the San Diego River and Forester Creek, immediately south of the Santee Lakes.

*** The primary MCL of 13 µg/L is for the protection of human health, the secondary MCL of 5 µg/L is for aesthetic qualities of drinking water (taste and odor). The secondary MCL of 5 µg/L will be used in this Order, and only applies to discharges to receiving waters designated as Municipal/Potable Supply.

5. Groundwater extraction waste discharged to surface waters must be essentially free of:

   a. Material that is floatable or will become floatable upon discharge.

   b. Settleable material or substances that form sediments which degrade[23] benthic communities or other aquatic life.

   c. Substances which will accumulate to toxic levels in aquatic sediments or biota.

   d. Substances that significantly[24] decrease the natural light to benthic communities and other aquatic life.

   e. Materials that result in aesthetically undesirable discoloration of surface waters.

6. Groundwater extraction waste discharged to surface waters shall not cause natural water quality conditions to be altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater.

7. Groundwater extraction waste discharged to surface waters shall be discharged in such a manner as to provide maximum protection to aquatic environments.

8. Groundwater extraction waste that contains pathogenic organisms or viruses shall be discharged a sufficient distance from shellfishing and water-contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard shall be used.

9. The Enrollee shall comply with all items of the " 40 CFR Standard Provisions References" that are part of this Order (Attachment B).

C. RECEIVING WATER LIMITATIONS[25]

The discharge of extracted groundwater from any site shall not, separately or jointly with any other discharge, cause violations of the following water quality objectives in surface waters:

1. Bacterial Characteristics of Marine Waters (Surf Zone) Including Bays, Harbor, Lagoons and Estuaries

(a) Water-Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water-contact sports, as determined by the Regional Board, but including all Kelp Beds[26], the following bacterial objectives shall be maintained throughout the water column:

1. Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any consecutive 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample, when verified by a repeat sample taken within 48 hours, shall exceed 10,000 per 100 ml (100 per ml).

2. The fecal coliform density based on a minimum of not less than five samples for any consecutive 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any consecutive 60-day period exceed 400 per 100 ml.

   The "Initial Dilution[27] Zone" of wastewater outfalls shall be excluded from designation as "Kelp Beds" for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g. outfall pipes and diffusers) do not constitute Kelp Beds for purposes of bacterial standards.

(b) Shellfish Harvesting Standards[28]

At all areas where shellfish may be harvested for human consumption (SHELL), the following bacterial objectives shall be maintained throughout the water column:

The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 320 per 100 ml.

2. Bacterial Characteristics of Inland Surface Waters (fresh)

(a) Water-Contact and Non-Contact Standards

In waters designated for contact recreation (REC1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 ml, nor shall more than 10 percent of total samples taken during any consecutive 30-day period exceed 400 per 100 ml.

In waters designated for noncontact recreation (REC2), and not designated for contact recreation (REC1), the average fecal coliform concentration for any 30-day period, shall not exceed 2,000 per 100 ml nor, shall more than 10 percent of samples collected during any consecutive 30-day period exceed 4,000 per 100 ml.

(b) Shellfish[28]

At all areas where shellfish may be harvested for human consumption, the median total coliform concentration for any 30-day period shall not exceed 70 per 100 ml, nor shall more than 10 percent of the samples collected during any consecutive 30-day period exceed 230 per 100 ml for a five-tube decimal dilution test or 330 per 100 ml when a three-tube decimal dilution test is used.

(c) In bays and estuaries, the most probable number of coliform organisms in the upper 60 feet of the water column shall be less than 1,000 per 100 ml provided that not more than 20 percent of the samples at any sampling station, in any consecutive 30-day period, may exceed 1,000 per 100 ml, and provided further that no single sample, when verified by a repeat sample taken within 48 hours, shall exceed 10,000 per 100 ml. A verification sample will be required within 48 hours.

3. Physical Characteristics

(a) Floating particulates and grease and oil shall not be visible.

(b) The discharge of waste shall not cause aesthetically undesirable discoloration of the surface water.

(c) Natural light shall not be significantly[24] reduced at any point outside the zone of initial dilution.

(d) The rate of deposition of solids and the characteristics of inert solids in receiving water sediments shall not be changed such that benthic communities are degraded[23].

(e) Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

4. Chemical Characteristics

(a). The dissolved oxygen concentration of ocean waters shall not at any time be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen demanding waste materials. In bays and lagoons, the annual mean dissolved oxygen concentration shall not be less than 7.0 mg/L, nor shall the minimum dissolved oxygen concentration be reduced below 5.0 mg/L at any time. In inland surface waters, the annual mean dissolved oxygen concentration shall not be less than 5 mg/L more than 10 percent of the time.

(b). The pH shall not be changed at any time more than 0.2 units from that which occurs naturally in marine or saline waters, nor 0.5 units in inland surface waters designated cold or warm fresh water habitat. In bays and estuaries, the pH shall not be depressed below 7.0 nor raised above 8.5. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.

(c). The dissolved sulfide concentration of waters in and near sediments and throughout the water column shall not be significantly[24] increased above that present under natural conditions.

(d). The concentration of substances set forth in Chapter IV, Table B, of the Ocean Plan, in marine sediments shall not be increased to levels which would degrade[23] indigenous biota.

(e). The concentration of organic materials in receiving water sediments shall not be increased to levels which would degrade[23] aquatic life.

(f). Nutrient materials shall not cause objectionable aquatic growth or degrade[23] indigenous biota.

5. Biological Characteristics

(a) Aquatic communities, including vertebrate, invertebrate, and plant species, shall not be degraded[23].

(b) The natural taste, odor, and color of fish, shellfish[28], or other aquatic resources used for human consumption shall not be altered.

(c) The concentration of organic materials in fish, shellfish or other aquatic resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

6. Radioactivity

Discharges of radioactive waste shall not degrade[23] aquatic life.

7. Toxic Materials Limitations for Marine Waters (Surf Zone) Ocean Plan, 1997

OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE

Chemical	Units of Measurement	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic	µg/L	8	32	80
Cadmium	µg/L	1	4	10
Chromium (Hexavalent)[14]	µg/L	2	8	20
Copper	µg/L	3	12	30
Lead	µg/L	2	8	20
Mercury	µg/L	0.04	0.16	0.4
Nickel	µg/L	5	20	50
Selenium	µg/L	15	60	150
Silver	µg/L	0.7	2.8	7
Zinc	µg/L	20	80	200
Cyanide	µg/L	1	4	10
Total Chlorine Residual[12]	µg/L	2	8	60
Ammonia (as nitrogen)	µg/L	600	2400	6000
Chronic Toxicity	TUc		1	
Phenolic Compounds (Non-chlorinated)	µg/L	30	120	300
Chlorinated Phenolics	µg/L	1	4	10
Endosulfan	ng/L	9	18	27
Endrin	ng/L	2	4	6
Chemical	Units of Measurement	6-Month Median	Daily Maximum	Instantaneous Maximum

HCH[29]	ng/L	4	8	12
Radioactivity	Not to exceed limits specified in Title 17, Chapter 15, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.			

OBJECTIVES FOR PROTECTION OF HUMAN HEALTH -- NONCARCINOGENS

Chemical	Units of Measurement	30-day Averages
Acrolein	µg/L	220
Antimony	mg/L	1.2
bis(2-chloroethoxy) methane	µg/L	4.4
bis(2-chloroisopropyl) ether	mg/L	1.2
Chlorobenzene	µg/L	570
Chromium (III)	mg/L	190
Di-n-butyl phthalate	mg/L	3.5
Dichlorobenzenes[30]	mg/L	5.1
1,1-dichloroethylene	mg/L	7.1
Diethyl phthalate	mg/L	33
Dimethyl phthalate	mg/L	820
4,6-dinitro-2-methylphenol	µg/L	220
2,4-dinitrophenol	µg/L	4.0
Ethylbenzene	mg/L	4.1
Fluoranthene	µg/L	15
Hexachlorocyclopentadiene	µg/L	58
Isophorone	mg/L	150
Nitrobenzene	µg/L	4.9
Thallium	µg/L	14
Toluene	mg/L	85
1,1,2,2-tetrachloroethane	mg/L	1.2
Tributyltin	ng/L	1.4
1,1,1-trichloroethane	mg/L	540
1,1,2-trichloroethane	mg/L	43

OBJECTIVES FOR PROTECTION OF HUMAN HEALTH -- CARCINOGENS

Chemical	Units of Measurement	30-day Average
Acrylonitrile	µg/L	0.1
Aldrin	ng/L	0.022
Benzene	µg/L	5.9
Benzidine	ng/L	0.069
Beryllium	ng/L	33
bis(2-chloroethyl) ether	µg/L	0.045
bis(2-ethylhexyl) phthalate	µg/L	3.5
Carbon tetrachloride	µg/L	0.9
Chlordane[31]	ng/L	0.023
Chloroform	mg/L	0.13
DDT[32]	ng/L	0.17
Chemical	**Units of Measurement**	**30-day Average**
1,4-dichlorobenzene	µg/L	18

3,3-dichlorobenzidine	ng/L	8.1
1,2-dichloroethane	mg/L	0.13
Dichloromethane	mg/L	0.45
1,3-dichloropropene	µg/L	8.9
Dieldrin	ng/L	0.04
2,4-dinitrotoluene	µg/L	2.6
1,2-diphenylhydrazine	µg/L	0.16
Halomethanes[33]	mg/L	0.13
Heptachlor[34]	ng/L	0.72
Hexachlorobenzene	ng/L	0.21
Hexachlorobutadiene	µg/L	14
Hexachloroethane	µg/L	2.5
N-nitrosodimethylamine	µg/L	7.3
N-nitrosodiphenylamine	µg/L	2.5
PAHs[35]	ng/L	8.8
PCBs[15]	ng/L	0.019
TCDD equivalents	pg/L	0.0039
Tetrachloroethylene	µg/L	99
Toxaphene	ng/L	0.21
Trichloroethylene	µg/L	27
2,4,6-trichlorophenol	µg/L	0.29
Vinyl chloride	µg/L	36

8. <u>Toxic Materials Limitations and Objectives for Inland Surface Waters (Fresh)</u>

(a) Discharges of extracted groundwater shall not cause violations of surface water quality objectives presented by hydrographic subunit and subarea in Table 3-2 of the Comprehensive Water Quality Control Plan Report, San Diego Basin (9), as amended.

(b) Discharges of extracted groundwater shall not cause violations of the following objectives in inland surface waters:

1. No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

2. For the protection of public health and aquatic species, waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of toxics in excess of the maximum contaminant levels for contaminants set forth in the California Code of Regulations, Title 22, as amended, or water quality objectives listed in 40 CFR 131.38 (Attachment D), for the protection of aquatic species and protection of human health, whichever concentration for a specific chemical is less. Current maximum contaminant levels for the protection of human health from the ingestion of water are as follows:

	<u>Constituent</u>	<u>Title22 Maximum Contaminant Level (mg/L)</u>
a. Inorganic	Aluminum	1

	Arsenic	0.05
	Barium	1
	Cadmium	0.01
	Chromium	0.05
	Lead	0.05
	Mercury	0.002
	Nitrate	45
	Selenium	0.01
	Silver	0.05
b. Organic	Atrazine	0.003
	Bentazon	0.018
	Benzene	0.001
	Carbon Tetrachloride	0.0005
	2,4-D	0.1
	Dibromochloropropane	0.0002
	1,4-Dichlorobenzene	0.005
	1,2-Dichloroethane	0.0005
	1,1-Dichloroethylene	0.006
	1,3-Dichloropropene	0.0005
	Endrin	0.0002
	Ethyl Benzene	0.68
	Ethylene Dibromide	0.00002
	Lindane	0.004
	Methoxychlor	0.1
	Molinate	0.02
	Monochlorobenzene	0.03
	Simazine	0.01
	1,1,2,2-Tetrachloroethane	0.001
	Tetrachloroethylene	0.005
	Thiobencarb	0.07
	Toxaphene	0.005
	2,4,5-TP Silvex	0.01
	1,1,1-Trichloroethane	0.2
	1,1,2-Trichloroethane	0.032
	Trichloroethylene	0.005
	Vinyl Chloride	0.0005
	Xylenes (Single or sum of isomers)	1.75

9. <u>Mineral Objectives for Inland Surface Waters (fresh):</u>

Hydrographic Unit	**Objective (mg/L)**			
	TDS	**Chloride**	**Sulfate**	**Boron**
San Juan Unit				
1.10	1000	400	500	0.75
1.20,1.30,1.40,1.50	500	250	250	0.75

Hydrographic Unit	**Objective (mg/L)**			
	TDS	**Chloride**	**Sulfate**	**Boron**
Santa Margarita Unit				
2.20,2.40,2.50,2.60	500	250	250	0.75

2.70,2.80,2.90,2.10,2.30	750	300	300	0.75
San Luis Rey Unit				
3.10,3.20,3.30	500	250	250	0.75
Carlsbad Unit				
4.10,4.40				
4.20,4.30,4.50,4.60	500	250	250	0.75
San Dieguito Unit				
5.10,5.20,5.30,5.40, 5.50	500	250	250	0.75
Penasquitos Unit				
6.10,6.20,6.40	500	250	250	0.75
6.30,6.50	---	---	---	---
San Diego Unit				
7.10	1000	400	500	1.0
7.11	1500	400	500	1.0
7.12c/d,	1000/1500	400	500	1.0
7.20,7.30,7.40	300	50	65	1.0
Coronado Unit				
10.10	NA	NA	NA	NA
Sweetwater River Unit				
9.10	1500	500	500	0.75
9.20,9.30	500	250	250	0.75
Otay Unit				
10.20	1000	400	500	0.75
10.30	500	250	250	0.75
Tijuana Unit				
11.11	2100	NA	NA	NA
11.20,11.30,11.40,11.50				
11.60,11.70,11.80	500	250	250	1.0

10. Waters designated for use as agricultural supply (AGR) shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

11. Radioactivity: Discharges of radioactive waste shall not degrade marine life.

D. ELIGIBILITY

1. This Order is applicable to existing and future discharges of extracted groundwater to surface waters resulting from construction, groundwater remediation, and active and passive foundation groundwater extraction projects and activities that are greater than 100,000 gpd, and those less than 100,000 gpd that contain pollutants. Examples of passive foundation groundwater extraction systems are footing drains, slope drains, subterranean drains, french drains, weep holes, or other passive groundwater drainage systems.

2. This Order establishes a general permit for groundwater extraction waste discharges (discharges of groundwater) to all surface waters, other than San Diego Bay under the jurisdiction of this Regional Board. This Order applies to:

   a. All groundwater extraction waste discharges (discharges of groundwater) of greater than 100,000 gallons per day (GPD); and

   b. Groundwater extraction waste discharges of less than 100,000 GPD where the extracted groundwater contains pollutants in excess of the limitations contained in Discharge Specification B.1, B.2, B.3, or B.4 of this Order, or which have the potential to cause a pollution, contamination, or nuisance in the receiving water or other waters downstream of the discharge point.

3. Discharges must meet the following criteria to be covered under this Order:

   (a) Pollutant concentrations in the discharge shall not cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;

   (b) The discharge shall not cause acute nor chronic toxicity in receiving waters.

4. Dischargers must submit an application for current discharges (not enrolled, but discharging) which meet the eligibility criteria (pursuant to the requirements in Sections F and G, below) to obtain authorization to discharge.

5. When an individual NPDES permit with more specific requirements for groundwater extraction waste discharges is issued to an Enrollee, the applicability of this Order to that Enrollee is automatically terminated on the effective date of the individual permit.

E. DISCHARGE REQUIREMENTS

The applicant shall submit an application to obtain authorization to discharge under this general NPDES permit in accordance with Section F, *Application Requirements,* below. If the discharge is eligible, the Regional Board shall notify the applicant that the discharge is authorized under the terms and conditions of this Order and issue an Enrollment Letter enrolling the applicant under this general permit. For new discharges, the discharge shall not commence until receipt of the Regional Board's Enrollment Letter.

Water main break and service break emergency repairs are to be reported ONLY if groundwater is encountered during the repair. For unforeseeable emergency repair where groundwater is encountered, which could not have been prevented or avoided by the exercise of due care or foresight, the discharger shall notify the Regional Board and submit reports in accordance with the following:

For Each Emergency Repair Where Groundwater is Encountered:

Notify the Regional Board within 24 hrs of each emergency repair on the Emergency Repair Report Form provided by the Regional Board (attached). Notifications may be made via fax at (858) 571-6972 or by e-mail to ghorw@rb9.swrcb.ca.gov, or philj@rb9swrcb.ca.gov. Additional information may be reported by phone at (858) 467-2952. The report form shall be filled out completely and indicate if the discharge posed a threat to the environment or human health.

Quarterly Summary Reporting of Emergency Repairs Where Groundwater is Encountered:

Submit quarterly summary reports to the Regional Board for the periods of January-March, April-June, July-September, and October-December; the reports shall be submitted by the 30th of the month following the report period (April 30, July 30, Oct 30 and Jan 30, respectively). Quarterly Summary Reports shall contain all emergency repairs that occurred during the reporting period. For each individual emergency repair the report shall contain information in accordance with Emergency Repair Report Form. The quarterly summary shall include map(s) clearly marking the locations of all emergency repairs that occurred during the report period. Each quarterly report shall include analytical results from the groundwater samples taken during emergency repairs. No more than four sampling events per quarter are required.

Samples collected shall be analyzed for the following constituents:

- Total Suspended Solids
- Settleable Solids
- Turbidity
- pH
- BTEX
- TPH
- MTBE
- Heavy Metals

After 1 year, the data will be reviewed by the Regional Board to determine if Order No. 2001-96 requires amendment in order to more appropriately regulate emergency repairs.

Emergency repair discharges are not subject to application or annual fees.

F. APPLICATION REQUIREMENTS

1. Deadline for Submission

New applicants shall file a complete application at least 60 days before the planned commencement of the discharge.

2. Forms for Report of Waste Discharge

   a. Applicants shall use forms supplied by the Regional Board (attached).

   b. The applicant, upon request, shall submit any additional information that the Regional Board deems necessary to determine whether the discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.

   c. The application shall be accompanied by the first annual fee of $1,000.00. The check or money order shall be made payable to the "State Water Resources Control Board."

In order to obtain authorization to discharge under the terms and conditions of this Order, the applicant shall submit an application on forms provided by the Regional Board and in accordance with directions specified by the Regional Board. **The application must include the following information and materials:**

1. Project type: remediation, construction, foundation, temporary, or permanent.

2. Project address/location. Include a map illustrating the project location, discharge points, receiving waters, and Hydrologic Subarea numbers.

3. Number of groundwater extraction sites, or wells. Depth to groundwater in each well. Distances between the wells or sites. (If this is an alignment project (i.e.: pipeline) set sample points no further than 1000 feet apart.

4. Estimated maximum discharge flowrate(s) (GPD).

5. Estimated duration of discharge event(s). Indicate whether the discharge(s) will be one time, short term intermittent (less than 60 days), long term intermittent (greater than 60 days), permanent continuous, or permanent intermittent.

6. Proposed location(s) of discharge event(s) points, and name of receiving water(s). State whether the discharge(s) will be via a storm drain system, or directly into the receiving water. If the discharge is directly into the receiving water, state if it will be submerged or on the surface. List & illustrate all discharge points. If the receiving water is an inland surface water (fresh water) that is tributary to a saline water body, state the distance from the discharge point to the saline water, and whether there is any tidal influence (measurable salinity) at the point of discharge.

7. Location and description of storm drain(s) or conveyance system(s) used to convey the discharge to surface waters.

8. Name of public agency or entity having jurisdiction of storm drain(s) or conveyance system(s) used to discharge to surface waters within the San Diego Region. Proof of

notification to the public agency or entity responsible for the storm drain(s) or conveyance system(s) used to convey the proposed discharge to surface waters.

9. Proposed groundwater extraction start date for each extraction site.

10. Radius of influence (also known as the "cone of influence") assessment. An estimate or calculation of the radius of drawdown from the groundwater extraction pumping point.

11. Description of all known contamination within the radius of influence.

12. Detailed historical land use report.

13. Site Assessment (if a site assessment has been done).

14. Proximity of discharge location to Areas of Special Biological Significance (ASBS). ASBS's are Heisler Park Ecological Reserve located in coastal waters near the City of Laguna Beach; the San Diego-La Jolla Ecological Reserve; and the San Diego Marine Life Refuge, located in coastal waters near La Jolla, a community of the City of San Diego.

15. Proposed treatment processes, including chemicals to be used for biofouling control.

16. Best Management Practices (BMP's) and contingency plan (for leaks, spills, and process treatment system failures).

17. Statement of the potential uses of the extracted groundwater and compliance with Article X, Section 2, of the California Constitution. An example of a potential use is dust control. The application shall include a feasibility study on reuse and/or alternative disposal methods of the water. Examples of alternative methods of disposal are reinjection, percolation into the ground, use for dust control, or irrigation.

18. Statement of the potential for disposal to alternative receiving waters. Examples of alternative methods of disposal are reinjection and percolation into the ground.

19. Statement of compliance with 40 CFR 131.12 and SWRCB Resolution No. 68-16 (collectively Antidegradation Policies).

20. Results of analyses of the groundwater to be extracted for all of the constituents listed in Discharge Specification B.1, B.2, B.3, or B.4 (depending upon the receiving water) of this Order, as well as all 126 CTR constituents (Attachment D).

21. Signed Certification of Compliance statement on responsible party (owners) letterhead. This is to be signed and submitted by the project owner. Certifications by consultants and contractors are not valid and will not be accepted.

22. The application shall be accompanied by the first annual fee of $1000.00. The check or money order shall be made payable to the "State Water Resources Control Board."

G. PROVISIONS

1. Neither the treatment nor the discharge of wastes shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.

2. The Enrollee must comply with all conditions of this Order and the Enrollment Letter from the Regional Board. Any permit noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action or for Enrollment Letter termination or modification.

3. The Enrollee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order or the Enrollment Letter, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.

4. This Order, and the Enrollment Letter, may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

   a. Violation of any terms or conditions of this Order or the Enrollment Letter;

   b. Obtaining coverage under this Order or the Enrollment Letter, by misrepresentation or failure to disclose fully all relevant facts;

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

   d. A finding that monitoring "indicator" pollutants listed in this Order do not ensure compliance with water quality criteria or objectives for the pollutants expected to be represented by the "indicator" pollutants.

   e. On the basis of any data, the Regional Board determines that continued discharges may cause unreasonable degradation of the aquatic environment.

5. The filing of a request by the Enrollee for modification, revocation and re-issuance, or termination of this Order or the associated Enrollment Letter, or a notification of planned change in or anticipated noncompliance with this Order or Enrollment Letter, does not stay any condition of this Order or the Enrollment Letter.

6. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Board may initiate proceedings under these regulations to modify or revoke and reissue this Order to conform to the toxic effluent standard or prohibition.

7. The Regional Board, or the Director of the U.S. EPA, may require any person requesting authorization to discharge under this general permit or authorized to discharge under this general permit to apply for and obtain an individual NPDES permit. Cases where an individual NPDES permit may be required include, but are not limited to, those

described in 40 CFR 122.28 (b)(3)(i) for U.S. EPA issued permits only.

8. An authorized discharge, either separately or jointly with any other discharge, shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act or amendments thereto, the Regional Board will revise and modify this Order in accordance with the more stringent standards.

9. The Enrollee shall comply with effluent standards or prohibitions established under Section 307(a) of the Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.

10. This Order, and the Enrollment Letter, is not transferable to any person except after notice to the Regional Board. The Regional Board requires the Enrollee to submit a transfer of ownership/responsibility in writing prior to the transmittal of a new Enrollment Letter to change the name of the Enrollee and incorporate such other requirements as may be necessary under the California Water Code and the Clean Water Act. The Enrollee shall submit notice of any transfer of this Order's responsibility and coverage to a new Enrollee as described under Reporting Requirement H.3.

11. This Order, and the Enrollment Letter, does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property of another, including property damage caused as a result of the migration of groundwater contaminant plumes, nor protect the Enrollee from liabilities under federal, state, or local laws, nor create a vested right for the Enrollee to continue its waste discharge.

12. The Enrollee shall allow the Regional Board, or an authorized representative, or any representative of the USEPA, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this Order; and

    d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act or California Water Code, any substances or parameters at any location.

13. The Enrollee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Enrollee to achieve compliance with the conditions of this Order or the Enrollment Letter. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order or the Enrollment Letter.

14. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass Not Exceeding Effluent Limitations

The Enrollee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operations. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

c. Notice of Anticipated Bypass and Unanticipated Bypass

(1) Anticipated bypass. If the Enrollee knows in advance of the need for a bypass they shall submit prior notice, if possible, at least ten days before the date of the bypass.

(2) Unanticipated bypass. The Enrollee shall submit notice of an unanticipated bypass as described under Reporting Requirement H.5.

d. Prohibition of Bypass

(1) Bypass is prohibited and the Regional Board may take enforcement action against the Enrollee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated

waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Enrollee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment down time or preventative maintenance; and

(c) The Enrollee submitted notices as required under paragraph c of this Section.

(2) The Regional Board may approve an anticipated bypass after considering its adverse effect, if the Regional Board determines that it will meet the three conditions listed above in sections D.1a, D.1b, and D.1c of this section.

15. Upset Condition

a. Definitions

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the Enrollee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph c of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions Necessary for a Demonstration of Upset

An Enrollee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the Enrollee can identify the specific cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The Enrollee submitted notice of the upset as required in Reporting Requirement H.5.

d. Burden of Proof

In any enforcement proceeding the Enrollee seeking to establish the occurrence of an upset has the burden of proof.

16. It shall not be a defense for the Enrollee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order or the Enrollment Letter. Upon reduction, loss, or failure of the treatment facility, the Enrollee shall, to the extent necessary to maintain compliance with this Order or the Enrollment Letter, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.

17. It shall not be a defense for the Enrollee in an enforcement action that effluent limitation violations are a result of analytical variability rendering the results inaccurate. The validity of the testing results, whether or not the Enrollee has monitored or sampled more frequently than required by this Order, shall not be a defense to an enforcement action.

18. A copy of this Order and the Enrollment Letter shall be posted at a prominent location at the Enrollee's facility, and shall be available to operating personnel at all times.

19. The provisions of this Order and the Enrollment Letter are severable. If any provision of this Order and Enrollment Letter, or the application of any provision of this Order and Enrollment Letter to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order and Enrollment Letter, shall not be affected thereby.

20. The Enrollee shall take all reasonable steps to minimize or prevent any discharge in violation of this Order which has a reasonable likelihood of adversely affecting human health or the environment.

21. The Enrollee will be required to comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements, which have been or may be adopted by this Regional Board.

22. The 6-month median effluent concentration limit shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.

23. The 30-day average shall be the arithmetic mean, using the results of analyses of all samples collected during any 30 consecutive day period.

24. The daily maximum effluent concentration limitation shall apply to flow weighted 24-hour composite samples, or grab samples if the duration of the discharge is less than 24 hours.

25. The instantaneous maximum effluent concentration limit shall apply to grab sample determinations.

26. If only one sample is collected during the time period associated with the effluent limitations (e.g., 30-day average or 6-month median), the single measurement shall be used to determine compliance with the average or median effluent limitation for the entire time period.

27. All analytical data shall be reported uncensored with detection limits and quantitation limits identified. For any effluent limitation, compliance shall be determined using appropriate statistical methods to evaluate multiple samples. Sufficient sampling and analysis shall be conducted to determine compliance.

28. Pursuant to 40 CFR 131.38, the discharger shall report with each sample results subject to the CTR Requirements:

    a. The applicable *Minimum Level (ML) in accordance with section 2.4.2, or established in accordance with section 2.4.3 of 40 CFR 131.38; this ML is the "reported ML"; and

    b. The laboratory's current *Method Detection Limit (MDL), as determined by the procedure found in 40 CFR 136.

29. Pursuant to 40 CFR 131.38, the discharger shall report the results of analytical determinations for the presence of chemical constituents in a samples subject to CTR requirements using the following reporting protocols:

    a. Sample results greater than or equal to the reported Minimum Level (ML) shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

    b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The *estimated chemical concentration of the sample shall also be reported.

       For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words, "Estimated Concentration" (may be shortened to ("Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

    c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

30. Compliance based on a single sample analysis should be determined where appropriate as described below for samples not subject to CTR requirements.

    a. When a calculated effluent limitation is greater than or equal to the PQL

(defined below), compliance shall be determined based on the calculated effluent limitation and either single or multiple sample analyses.

b. When the calculated effluent limitation is below the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.

c. When the calculated effluent limitation is below the PQL and recurrent analytical responses between the PQL and the calculated limit occur, compliance shall be determined by statistical analysis of multiple samples.

31. Published values for MDLs (defined below) and PQLs should be used for samples not subject to CTR requirements, except where revised MDLs and PQLs are available from recent laboratory performance evaluations, in which case the revised MDLs and PQLs should be used. Where published values are not available, the Regional Board will determine appropriate values based on available information, including information submitted by the Enrollee upon request of the Regional Board.

a. The Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 CFR Part 136, Attachment B.

b. The PQL is the lowest concentration of a substance which can be consistently determined within +/-20% of the true concentration by 75% of the labs tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL for carcinogens is the MDL x 5, and for non-carcinogens is the MDL x 10.

32. When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCBs), concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the MDL for that parameter.

33. The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

$$\text{mass emission rate (lb/day)} = 8.34 \times Q \times C$$

in which Q is the flow rate in MGD and C is the constituent concentration in mg/L, and 8.34 is a conversion factor. If a composite sample is taken, then C is the constituent concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited. Mass loading effluent limitations for a specific pollutant may be calculated using the authorized flowrate (in MGD) as the flow rate "Q" and the pollutant concentration limitation contained in Discharge Specification No. B.1, B.2, B.3, or B.4 as the constituent concentration "C" in the above equation.

34. Compliance with the Acute Toxicity limitation in Section B.1, B.2, B.3, or B.4, *Discharge Specifications*, of this Order shall be determined using an established protocol, e.g., American Society for Testing Materials (ASTM), USEPA, American Public Health Association, or SWRCB.

Acute Toxicity (TUa) shall be expressed in Toxic Units Acute (TUa), where:

$$TUa = \frac{\log (100 - S)}{1.7}$$

where S is the percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

Acceptable test species for fresh water samples are: Vertebrate (Fish) = fathead minnow.

35. Compliance with the Chronic Toxicity effluent limitation established in Discharge Specification No. B.1, B.2, B.3, or B.4, of this Order, shall be determined using critical life stage toxicity tests. Chronic Toxicity (TUc) shall be expressed as Toxic Units Chronic (TUc), where:

TUc = 100/NOEL

where NOEL is the No Observed Effect Level and is expressed as the maximum percent of effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed below.

A minimum of three test species with approved test protocols shall be used to measure compliance with the chronic toxicity objective. The test species shall include a fish, an invertebrate, and an aquatic plant.

Acceptable test species for fresh water samples are: Vertebrate (Fish) = fathead minnow; Invertebrate = water flea; Plant = algae.

The following tests shall be used to measure TUc for salt-water samples:

Species	Effect	Tier	Reference
Giant kelp, Macrocystis Pyrifera	percent germination; germ tube length	1	Ocean Plan, pg. 24
Red abalone, Haliotis Plan,rufescens	abnormal shell development	1	Ocean pg. 24
Oyster, Crassostrea gigas; mussels, Mytilus spp.	abnormal shell development; percent survival	1	Ocean Plan, pg. 24
Urchin, Strongylocentrotus purpuratus; sand dollar, Dendraster excentricus	percent normal development	1	Ocean Plan, pg. 24
Species	Effect	Tier	Reference

Urchin, Strongylocentrotus Purpuratus; sand dollar, Dendraster excentricus	percent fertilization	1	Ocean Plan, pg. 24
Shrimp, Holmesimysis costata	percent survival; growth	1	Ocean Plan, pg. 24
Shrimp, Mysidopsis bahia	percent survival; growth; fecundity	2	Ocean Plan, pg. 24
Topsmelt, Atherinops affinis	larval growth rate; percent survival	1	Ocean Plan, pg. 24
Silversides, Menidia beryllina	larval growth rate; percent survival	2	Ocean Plan, pg. 24

Note: The first tier test methods are the preferred toxicity tests for compliance monitoring. A Regional Board can approve the use of a second tier test method for waste discharges if first tier organisms are not available.

After a screening period, to be determined on a case by case basis by the Regional Board, monitoring may be reduced to the most sensitive species. Dilution and control water should be obtained from an unaffected area of the receiving waters. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

36. No later than six months after authorization to discharge under this Order, all permanent groundwater extraction waste discharge Enrollees shall develop a Toxicity Reduction Evaluation (TRE) workplan in accordance with USEPA's Toxicity Reduction Evaluation Procedures: Phases 1, 2, and 3, (USEPA document Nos. USEPA 600/3-88/034, 600/3-88/035 and 600/3-88/036, respectively), and TRE Protocol for Municipal Wastewater Treatment Plants (USEPA 600/2-88/062). The TRE workplan shall be subject to the approval of the Regional Board and shall be modified as directed by the Regional Board. All Enrollees shall submit the TRE workplan to the Regional Board upon completion. Submittal of the TRE workplan on a IBM formatted double sided high density 3.5" floppy disk in Word 7.0 format is acceptable.

If toxicity testing results show a violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1, B.2, B.3, or B.4 of this Order, the Enrollee shall:

a. Take all reasonable measures necessary to immediately minimize toxicity; and

b. Increase the frequency of the toxicity test(s) which showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.

If the Regional Board determines that toxicity testing shows consistent violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1, B.2, B.3, or B.4 of this Order, the Enrollee shall conduct a TRE which includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the Enrollee shall

take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in Discharge Specification B.1, B.2, B.3, or B.4 of this Order.

Within fourteen days of completion of the TRE, the Enrollee shall submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with all the toxicity limitations of this Order and prevent recurrence of violations of those limitations, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Executive Officer.

37. For all bacterial analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000 MPN (most probable number). The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in the most recent edition of Standard Methods for the Examination of Water and Wastewater or any improved method determined by the Regional Board (and approved by USEPA) to be appropriate. Detection methods used for enterococcus shall be those presented in USEPA publication USEPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Regional Board to be appropriate.

38. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_n)^{1/n}$$

Where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL) found on each day of sampling.

39. As used in this Order, waste includes an Enrollee's total discharge of whatever origin (i.e. gross, not net) discharge.

40. Reduction of natural light may be determined by the Regional Board by measurement of light transmissivity, total irradiance, or both, according to the monitoring needs of the Regional Board.

H. REPORTING REQUIREMENTS

1. The Enrollee shall file a new application not less than 180 days prior to the following:

   a. Addition of any industrial waste to the discharge or the addition of a new process or product resulting in a change in the character of the wastes.

   b. Significant change in disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).

   c. Significant change in disposal area (e.g., moving the discharge to a disposal area significantly removed from the original area, potentially causing

different water quality or nuisance problems).

d. Increase in flow beyond that specified in the Enrollee's Enrollment Letter.

e. Other circumstances which result in a material change in character, amount, or location of the waste discharge.

f. Any planned physical alterations or additions to the permitted discharge and/or facility.

2. The Enrollee shall give advance notice to the Regional Board of any planned changes in the permitted discharge and/or facility or activity which may result in noncompliance with the requirements of this Order or the Enrollment Letter.

3. The Enrollee must notify the Regional Board, in writing, at least 30 days in advance of any proposed transfer of authorization and responsibility for compliance with this order to a new Enrollee. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of authorization responsibility and coverage between the current Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date on.

4. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2001-96 and any additional monitoring requirements specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2001-96. The sampling and analysis schedule in the attached monitoring program must be followed, as well as any additional or augmented monitoring requirements specified in the Enrollment Letter. If requested by the Enrollee, the monitoring program may be modified or reduced by the Regional Board after review of results from not less than four sampling events with a sampling frequency of not less than monthly. If the groundwater extraction and/or treatment system(s) described in the application is modified, the schedule of applicable monitoring specified in Monitoring and Reporting Program No. 2001-96, or the Enrollment Letter, will be reviewed for possible modification.

5. The Enrollee shall report any noncompliance, which may endanger health or the environment. Any information shall be provided orally to the Regional Board within 24 hours from the time the Enrollee becomes aware of the circumstances. The Enrollee shall submit a written report containing a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The written report shall be included with the monitoring report for the period in which the noncompliance occurred, or earlier if requested by the Regional Board. The following occurrence(s) must be reported to the Regional Board within 24 hours:

a. Any upset which causes the effluent limitations of this Order to be exceeded;

b. Any unanticipated bypass which causes the effluent limits of this Order to be exceeded;

c. Violation of a daily maximum effluent limitation, or instantaneous maximum effluent limitation, if a grab sample is obtained, as specified in this Order excluding violations of settleable solids, total suspended solids, turbidity, phosphorus, and nitrogen (provided that nitrate-nitrogen does not exceed 10 mg/L); and

d. Any violation of the prohibitions of this Order or an Enrollment Letter.

6. Enrollees applying for enrollment under this Order shall notify the Agency/Municipality that owns, operates, and maintains the storm water conveyance system that the Enrollee proposes to use the storm water conveyance system as a discharge conveyance system to a surface water.

7. The Enrollee shall notify the Regional Board as soon as it is known or there is reason to believe:

a. That any activity has occurred or will occur which will result in the discharge of any toxic pollutant which is not limited in this Order, if that discharge will exceed the highest of the following "notification levels":

1. One hundred micrograms per liter (100 μg/L);

2. Two hundred micrograms per liter (200 μg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/L) for 2.4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.

8. The Enrollee shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or the Enrollment Letter, or to determine compliance with this Order or other requirements established by the Regional Board. The Enrollee shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order or the Enrollment Letter.

9. The Enrollee shall provide adequate notice to the Regional Board of the following:

a. Any new introduction of pollutants to the discharge (i.e.: chlorine).

b. Any substantial change in the volume or character of pollutants being introduced into the discharge.

c. For the purpose of this provision, adequate notice shall include information on:

(1) The quality and quantity of pollutants introduced into the discharge, and

(2) Any anticipated impact of the change on the quantity or quality of

effluent to be discharged to the receiving water.

10. Where the Enrollee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application, or in any report to the Regional Board, it shall promptly submit such facts or information.

11. If a need for a discharge bypass is known in advance, the Enrollee shall submit prior notice and, if at all possible, such notice shall be submitted at least ten days prior to the date of the bypass.

12. This Order expires on September 14, 2006. However, it will continue in force and effect until a new general permit is issued or the Regional Board rescinds this general permit.

13. All applications, reports, or information submitted to the Regional Board shall be signed and certified.

    a. The application and certification report shall be signed as follows:

        1. For a corporation - by a principal executive officer of at least the level of vice-president.

        2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.

        3. For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official.

    b. All other reports required by this Order and other information requested by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

        1. The authorization is made in writing by a person described in paragraph (a) of this provision;

        2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility (a duly authorized representative may be either a named individual or any individual occupying a named position); and

        3. The written authorization is submitted to the Regional Board.

    c. Any person signing a document under this Section shall make the following certification:

        "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the

information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

14. Except for data determined to be confidential under Title 40, Code of Federal Regulations Part 2 (40 CFR Part 2), all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region and the USEPA, Region 9. As required by the Clean Water Act, applications, this Order, and effluent data shall not be considered confidential.

15. Where a Categorical Exception pursuant to Section 5.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy) is requested, the discharger shall notify potentially affected public and governmental agencies. Also, the discharger shall submit to the Regional Board, for approval:

    a. A detailed description of the proposed action, including the proposed method of completing the action;

    b. A time schedule;

    c. A discharge and receiving water quality monitoring plan (before project initiation, during the project, and after project completion, with the appropriate quality assurance and quality control procedures);

    d. California Environmental Quality Action (CEQA) documentation;

    e. Contingency plans;

    f. Identification of alternate water supply (if needed);

    g. Residual waste disposal plans; and

    h. Upon completion of the project, the discharger shall provide certification by a qualified biologist that the receiving water beneficial uses have been restored.

16. The Enrollee shall submit written notification of the termination of the discharge to the Regional Board within 30 days of the termination of the discharge.

17. The Enrollee shall submit applications and reports required under this Order to:

    Industrial Compliance Unit
    California Regional Water Quality Control Board
    San Diego Region
    9771 Clairemont Mesa Blvd, Suite A

San Diego, California 92124-1324

I. NOTIFICATIONS

1. California Water Code Section 13263(g) states:

   "No discharge of waste into the waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the state are privileges, not rights."

2. The Clean Water Act provides that any person who violates a condition of this Order implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a civil penalty not to exceed $10,000 per day of such violations. Any person who willfully or negligently violates conditions of this Order implementing Section 301, 302, 306, 307 or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

3. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

4. Nothing in this Order shall be construed to relieve the Enrollee from civil or criminal penalties for noncompliance.

5. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Enrollee from any responsibilities, liabilities, or penalties to which the Enrollee is or may be subject to under Section 311 of the Clean Water Act.

6. Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Enrollee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

7. This Order shall become effective 10 days after the date of its adoption, provided the Regional Administrator or Director, USEPA, has no objection. If the Regional Administrator or Director objects to its issuance, this Order shall not become effective until such objection is withdrawn.

8. If the *Water Quality Control Policy for Enclosed Bays and Estuaries of California* (May 16, 1974) is revised, this Order may be modified to incorporate such revisions. If a Water Quality Control Plan for Enclosed Bays and Estuaries of California is adopted, this Order may be modified to implement such a plan.

9. This Order supersedes Order No. 96-41, and Order No. 96-41 is rescinded when this Order takes effect.

10. Once enrolled under this Order, the Enrollee shall be subject to an annual fee of $1000.00. The check or money order shall be submitted with the application, and made payable to the "State Water Resources Control Board."

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Control Board, San Diego Region, on October 10,200l.

JOHN H. ROBERTUS
Executive Officer
October 10, 2001

ENDNOTE REFERENCES

1. "Enclosed bays" include all bays where the narrowest distance between headlands or outer most harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay.

2. BAT = "Best available technology economically achievable" refers to the best treatment technologies available which have been determined to be cost effective, reliable, and efficient by the USEPA, SWRCB, or the Regional Water Quality Control Board.

3. 40 CFR 122.4(d)(1)(vii) requires that if indicator monitoring parameters are used, the following four provisions must be fulfilled:

   a) The permit identifies which pollutants are intended to be controlled by use of the indicator effluent limitations,

   b) The fact sheet sets forth the basis for each indicator chemical's effluent concentration limitation and includes a finding that compliance with the limit on the indicator constituent will result in controls on the pollutant(s) of concern which are sufficient to attain and maintain water quality standards,

   c) Effluent and receiving water quality monitoring to show the limit on the indicator parameter attains and maintains applicable water quality standards, and

   d) The permit contains a re-opener clause.

   e) Each of the preceding conditions for inclusion of indicator parameter monitoring has been addressed in this Order, the attached Monitoring and Reporting Program, the Enrollment Letter from the Regional Board, or the Fact Sheet for this Order.

4. Leaking Underground Storage Tank Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, State of California, Leaking Underground Fuel Tank Task Force, May 1988.

5. Diesel fuel consists primarily of straight-chain hydrocarbons (alkenes and alkanes) ranging in length from C10 to C23 with C16 and C17 predominating. The C10-C30 straight-chain hydrocarbons can be quantified in groundwater using standard analytical techniques (e.g. California Department of Health Services recommended analytical procedure for total petroleum hydrocarbons - diesel, (LUFT Manual: Guidelines for site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989 base/neutral organic analytical techniques contained in 40CFR 136). Since the predominant components of diesel fuel are the straight-chain hydrocarbons, the total petroleum hydrocarbon - diesel standard testing method contained in the LUFT Manual is used as the indicator of diesel fuel-contaminated groundwaters. Groundwater gasoline remediation projects may use standard TPH methods.

   The "indicator" compounds to detect common industrial solvents are the volatile organic compounds listed in 40 CFR 136.

6. NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), USEPA, Water Management Division, July 1986.

7. After receipt of an application report as required by Section F, *Application Requirements* of Tentative Order No. 2001-96, the Regional Board may:

   a) Determine that the proposed discharge is subject to regulation by Tentative Order No. 2001-96,

   b) Determine that the proposed discharge is not subject to regulation by Tentative Order No. 2001-96, or

   c) Request additional information in order to determine if the discharge is subject to regulation by Tentative Order No. 2001-96.

If the Regional Board determines that the proposed discharge is subject to regulation by Tentative Order No. 2001-96, an "Enrollment Letter" will be issued to the Enrollee authorizing the discharge, subject to the terms and conditions of Tentative Order No. 2001-96 and any other conditions necessary to protect the beneficial uses of surface waters within the San Diego Region. The Enrollment Letter will also specify the maximum allowed discharge flowrate (which also limits the mass loading rate for each pollutant listed in Discharge Specification Nos. B.1, B.2, B.3, and B.4 of Tentative Order No. 2001-96) and any additional monitoring and reporting requirements not covered by Monitoring and Reporting Program No. 2001-96. Enrollment Letters issued by the Regional Board for discharges from groundwater remediation operations shall specify effluent limits and monitoring requirements for the constituents necessitating remediation. If the Regional Board does not issue an Enrollment letter for a discharge under the terms and conditions of Tentative Order No. 2001-96, the discharge of groundwater extraction waste to surface waters within the San Diego Region other than San Diego Bay is prohibited.

8. The effluent limitations for Ocean Plan Table B constituents for groundwater extraction waste discharges to bays and estuaries were determined by using an initial dilution factor of zero and applying the calculations and procedures found in the Water Quality Control Plan, Ocean Waters of California, 1997 (Ocean Plan). Except for volatile and base/neutral extractable compounds, in which case concentrations achievable using best available technology economically achievable (BAT) were taken into consideration, where lower than Table B-based effluent limitations can be achieved using BAT, BAT is the basis for the lower effluent limit.

The effluent limitations for Ocean Plan Table B constituents for groundwater extraction waste discharges to the surf zone were determined by using an initial dilution factor of three and applying the volatile and base/neutral compounds in the case that BAT is able to reduce the constituent to a lower concentration. The use of dilution factor of three for discharges to surf zones is based on a preliminary dilution model submitted by Professor Gerhard H. Jirka, School of Civil and Environmental Engineering, Cornell University, for a dewatering project for the international treatment facility ocean outfall near Tijuana. This particular model assumes that:

a) Mixing of the dewatering is primarily controlled by wave-induced turbulence and longshore conditions,

b) 0.55 meter wave height with a 15 second period occurring with a 95 percent exceedance probability,

c) A longshore velocity of 5 to 10 centimeters per second, and

d) A near-shore slope of 3 percent.

The model results in an initial dilution ratio of 6. Since the model does not represent topographic and wave conditions throughout the Region, the initial dilution factor for discharges to surf zones was halved.

The effluent limitations for volatile and base/neutral organics not limited by standard criteria or objectives (e.g., Ocean Plan, USEPA criteria, etc.) are based on best professional judgement of the best available technology economically achievable (BAT) for the removal of volatile and semivolatile organic compounds from groundwater (reference is made to NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), USEPA, Water Management Division, July 1986) and the practical quantitation level (PQL) for each compound. Effluent limitations for settleable solids, total suspended solids, nitrogen, phosphorus, turbidity, dissolved oxygen, and acute toxicity are based on best professional judgement.

Effluent limitations for toxic pollutants which may be present in groundwater extraction waste discharges to inland surface waters designated municipal or potable supply are based on:

a) the USEPA criteria for the protection of aquatic species,

b) the California Department of Health Service's Maximum Contaminant Level (MCL) for potable water, or

c) Achievable effluent concentrations using best available technology (BAT).

Effluent limitations for discharges to inland surface waters which have not been designated as having a beneficial use of municipal or potable supply are based on the following:

a) The USEPA criteria for the protection of aquatic species,

b) The USEPA criteria for the protection of human health from consumption of aquatic species, or

c) Achievable effluent concentrations using best available technology (BAT).

Effluent limitations for the protection of human health from the ingestion of carcinogens are based on the EPA criteria which may result in an incremental cancer risk over the lifetime of 10^{-6}.

Where effluent concentration limitations in this Order are less than Methods Detection Limits (MDL) contained in 40 CFR 136, or other analytical detection levels approved by the Regional Board, compliance with effluent limitations will be assumed if the effluent concentration is less than the MDL or PQLs contained in the approved analytical methods unless more definitive (sensitive) analytical methods are requested by the Regional Board. If sample matrix interferences, or other interferences result in analytical detection levels less sensitive than those listed in 40 CFR 136, or other methods approved by the Regional Board, such interferences shall be documented by the laboratory performing the analyses.

9. The "Basis" for each numerical effluent pollutant concentration limit necessary to protect the beneficial uses of receiving waters was derived or obtained from the source indicated in Discharge Specifications B.1 through B.4. Abbreviations listed in the table are explained in footnote reference Nos. 10, 11, 13, 19, 21, and 22 below.

10. "BPJ" = Best Professional Judgement. The application of best professional judgement in establishing effluent limitations is authorized by 40 CFR 125.3. The establishment of BPJ effluent limitations is based on the following:

a) review of effluent limitations for similar operations which discharge wastes to enclosed bays or other receiving waters in the State of California,

b) Compliance with general narrative water quality objectives as required in the Comprehensive Water Quality Control Plan, San Diego Basin (9) (Basin Plan),

c) Review of technical support documents, *Quality Criteria for Water*, United States Environmental Protection Agency, if available, for suggested criteria for the protection of aquatic life,

d) Water Quality Control Plan, Ocean Waters of California, 1997, and

e) Water Quality Control Policy for Enclosed Bays and Estuaries of California (May 16, 1974).

11. “OP” = Ocean Plan. Effluent limitations for Ocean Plan, Table B constituents are derived using a dilution factor of ‘zero’ for discharges to bays and estuaries, lagoons and harbors, inland surface waters and ‘three’ for discharges to the surf zone, and applying the calculations and procedures found in the Ocean Plan (Water Quality Control Plan, Ocean Waters of California, 1997). The effluent limitations for volatile organics (e.g., benzene, ethylbenzene, toluene, and xylene, etc.) are based on best professional judgement of the best available technology economically achievable (BAT) for the removal of volatile organic compounds from water (reference is made to NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), U.S. Environmental Protection Agency, Water Management Division, July 1986) and the practical quantitation level for each compound. Effluent limitations for settleable solids, total suspended solids, toxicity, hydrogen sulfide, and total petroleum hydrocarbons are based on best professional judgement.

12. Total Residual Chlorine: In samples obtained from marine, saline, or other waters containing bromine, total residual chlorine limitations shall apply to total residual oxidants (TRO). The effluent and receiving water quality limitations for chlorine are based on a continuous discharge. Effluent and receiving water quality limitations for total chlorine residual applying to intermittent chlorine discharges not exceeding two hours, shall be determined through the use of the following equation:

$$\log y = -0.33(\log x) + 2.1$$

where y = the effluent and receiving water quality limitation (in μg/L) to apply when chlorine is being discharged;
x = the duration of uninterrupted chlorine discharge in minutes.

13. "BPJ/BAT" = The best professional judgement of the best available technology economically achievable. The effluent limitations for volatile and semivolatile organic compounds are based on BPJ/BAT for the removal of organic constituents as authorized by Section 301(b)(2) of the Clean Water Act. The establishment of the BPJ/BAT effluent imitations is based on:

    a) Economically achievable pollutant removal efficiencies of available treatment technologies,

    b) Method detection limits (MDL) or practical quantitation levels (PQL) established for organic contaminants in waters,

    c) The draft document *NPDES Permit Limitations For Discharge Of Contaminated Groundwater: Guidance Document For Volatile Petroleum Hydrocarbons*, prepared by Harold A. Ball and Kenneth H. Sutherland, USEPA, Water Management Division, July 1986,

    d) *Leaking Underground Storage Tank Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure*, State of California, Leaking Underground Fuel Tank Task Force, May 1988,

    e) *Final NPDES General Permit for Petroleum Fuel Contaminated Ground/Storm Water in the State of Florida*, Federal Register, July 17, 1989, and,

    f) *Model NPDES Permit for Discharges Resulting From the Cleanup of Gasoline Released From Underground Storage Tanks*, USEPA, June 1989.

14. The hexavalent and trivalent chromium limits may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for hexavalent chromium and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.

15. PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Arochlor-1016, Arochlor-1221, Arochlor-1232, Arochlor-1242, Arochlor-1248, Arochlor-1254, and Arochlor-1260.

16. "Base/Neutral organic compounds" are listed in 40 CFR 136. The instantaneous maximum effluent limitation of 10 μg/L for base/neutral compounds does not apply to pesticides.

17. Discharges to lagoons and estuaries consisting of freshwater shall comply with the effluent limitations for discharges to inland surface waters. Where questions arise concerning the salinity, or lack thereof, of a receiving water, the Regional Board shall determine which effluent limitation are applicable.

18. Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total phosphorus concentrations shall not exceed 0.05 mg/L in any stream at the point where it enters any standing body of water, nor 0.025 mg/L in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/L total phosphorus. These values are not to exceed more than 10% of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ration of nitrogen: phosphorus = 10:1 shall be used.

19. “BP” = Basin Plan (Comprehensive Water Quality Control Plan, San Diego Basin (9).

20. Effluent limitations for discharges to the surf zone were obtained assuming an initial dilution factor of three and applying the calculations and procedures found in the Water Quality Control Plan, Ocean Waters of California, 1997, except in cases in which BAT can achieve lower effluent pollutant concentrations. BAT effluent limitations are applied at the "end-of-pipe" and dilution factors are not applicable.

21. Surface waters with municipal beneficial uses are identified in the Basin Plan.

22. DOHS = California Department of Health Services - Maximum Contaminant Levels for drinking water.

23. Degradation shall be determined by comparison of the waste field and reference site(s) for characteristics such as species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

24. Significant difference is defined as statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

25. Compliance with the water quality objectives shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed. Since the effluent limitations in this Order are based on an initial dilution factor of zero with the exception of discharges to the surf zone, compliance with the water quality objectives shall be met at all locations in the receiving water.

26. Kelp Beds are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp Beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

27. Initial dilution is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

    For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

    For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of the discharges.

28. Shellfish are organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e. mussels, clams, and oysters).

29. HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane

30. Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.

31. Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor, nonachlor-gamma, and oxychlordane.

32. DDT shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

33. Halomethanes shall mean the sum of bromoform, bromomethane, (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.

34. Heptachlor shall mean the sum of heptachlor and heptachlor epoxide.

35. PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenapthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

36. "Average Monthly Effluent Limitation"(AMEL) = The highest allowable average of daily pollutant discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of measurements.

37. The 30-day average shall be the arithmetic mean, using the results of analyses of all samples collected during any 30 consecutive calendar day period.

38. U.S. EPA approved methodology for the analysis of MTBE in water include methods 8020 and 8260B. Method 8020 yields "false positives" at times and is less accurate than method 8260B. Method 8260B is more accurate, therefore it is recommended that 8260B is used. If the enrollee chooses to use method 8020, and the analytical results show that MTBE was detected, then the enrollee shall run a second analysis for MTBE using method 8260B, in order to confirm the presence or absence of MTBE in the groundwater. The level of accuracy of a particular methodology shall not exempt an enrollee from the potential of enforcement action being taken due to exceedences of permit limits.

County of San Diego, Dept. of Environmental Health, Site Assessment & Mitigation Program, January 20, 2000 SAM Manual, Section 5-Site Investigation Techniques, IX Lab Analysis, Table 5-4, states that EPA Method 8260B is required for MTBE analysis.

State Water Resources Control Board letter dated April 13, 2000 to Regional Board's/Underground Storage Tank Program Managers and Local Oversight Program Managers, states that the appropriate analytical test method for MTBE is 8260.

ORDER NO. 2001-96

ATTACHMENT A

BASIN PLAN WASTE DISCHARGE PROHIBITIONS

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by Section 13050 of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California, could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, is prohibited.

2. The discharge of waste to land, except as authorized by waste discharge requirements of the terms described in California Water Code Section 13264, is prohibited.

3. The discharge of pollutants or dredged or fill material to waters of the United States, except as authorized by an NPDES permit or a dredge or fill material permit (subject to the exemption described in California Water Code Section 13376), is prohibited.

4. The discharge of treated or untreated waste to lakes or reservoirs used for municipal water supply, or to inland surface water tributaries thereto, is prohibited.

5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.

6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the enrollee is prohibited unless the discharge is authorized by the Regional Board.

7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner that may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.

8. Any discharge to a storm water conveyance system that is not composed entirely of "storm water" is prohibited unless authorized by the Regional Board. [Federal Regulations 40 CFR 122.26 (b) defines storm water as storm water runoff, snow melt runoff, and surface runoff and drainage.]

9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.

10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.

11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.

12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.

13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.

14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities that cause deleterious bottom deposits, turbidity or discoloration in waters of the state or that unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.

15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.

16. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.

17. The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at mean lower low water (MLLW) is prohibited.

18. The discharge of treated sewage from vessels that do not have a properly functioning US Coast Guard certified Type I or Type II marine sanitation device to portions of San Diego Bay that are greater than 30 feet deep at MLLW is prohibited.

ORDER NO. 2001-96

ATTACHMENT B

40 CFR STANDARD PROVISIONS REFERENCES

40 CFR 122.1 Purpose and scope

40 CFR 122.1(a) and (b).

40 CFR 122.2 Definitions

40 CFR 122.2(all).

40 CFR 122.3 Exclusions

40 CFR 122.3(a) through (g).

40 CFR 122.4 Prohibitions (applicable to State programs, see Section 123.25).

40 CFR 122.4(a) through (i).

40 CFR 122.5 Effect of a permit (applicable to State programs, see Section 123.25).

40 CFR 122.5(a) through (c).

40 CFR 122.6 Continuation of expiring permits

40 CFR 122.6(b) through (d).

40 CFR 122.7 Confidentiality of information (applicable to State programs, see Section 123.25).

40 CFR 122.7 (a) through (c).

40 CFR 122.21 Application for a Permit (applicable to State programs, see Section 123.25).

40 CFR 122.21(a) through (p).

40 CFR 122.22 Signatories to permit applications and reports (applicable to State programs, see Section 123.25).

(a) Applications. All applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of

the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in Section 122.22(a)(1)(i) . The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under §122.22(a)(1)(ii) rather than to specific individuals.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
(3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,

(3) The written authorization is submitted to the Director.

(c) Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) Certification. Any person signing a document under paragraph (a) or (b) of this section shall

make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

40 CFR 122.23 Concentrated animal feeding operations (applicable to State programs, see Section 123.25).

40 CFR 122.23(a) through (c).

40 CFR 122.24 Concentrated aquatic animal production facilities (applicable to State programs, see Section 123.25).

40 CFR 122.24(a) through (c).

40 CFR 122.25 Aquaculture projects (applicable to State programs, see Section 123.25).

40 CFR 122.25(a) and (b).

40 CFR 122.26 Storm water discharges (applicable to State programs, see Section 123.25).

40 CFR 122.26(a) through (g).

40 CFR 122.27 Silvicultural activities (applicable to State programs, see Section 123.25).

40 CFR 122.27(a) and (b).

40 CFR 122.28 General permits (applicable to State programs, see Section 123.25).

40 CFR 122.28(a) and (b).

40 CFR 122.29 New sources and new dischargers

40 CFR 122.29(a) through (d).

40 CFR 122.30 through 122.37 (Various sections on regulation of small MS4's).

40 CFR 122.41 Conditions applicable to all permits (applicable to State programs, see Section 123.25).

The following conditions apply to all NPDES permits. Additional conditions applicable to NPDES permits are in Section 122.42. All conditions applicable to NPDES permits shall be incorporated into the permits

either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

(a) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a ermit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

(2) The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Clean Water Act provides that any person who negligently violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

(3) Any person may be assessed an administrative penalty by the Administrator for

violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(g) Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

(j) Monitoring and records.

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in the permit.

(5) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

(k) Signatory requirement. All applications, reports, or information submitted to the Director shall be signed and certified (See 40 CFR 122.22). The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(l) Reporting requirements.

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in §122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under §122.42(a)(1).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See §122.61; in some cases, modification or revocation and reissuance is mandatory.)

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

(5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the Permit (See 40 CFR 122.41(g)).

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g)).

(iii) The Director may waive the written report on a case-by-case basis for reports

under paragraph (l)(6)(ii) of this section if the oral report has been received within 24 hours.

(7) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (l)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(6) of this section.

(8) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(m) Bypass

(1) Definitions.

(i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(2) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (m)(3) and (m)(4) of this section.

(3) Notice

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (l)(6) of this section (24-hour notice).

(4) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (m)(3) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.

(n) Upset

(1) Definition. "Upset" means an exceptional incident in which there is unintentional and emporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(2) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(3) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;

(ii) The permitted facility was at the time being properly operated; and

(iii)The permittee submitted notice of the upset as required in paragraph (1)(6)(ii)(B) of this section (24 hour notice).

(iv) The permittee complied with any remedial measures required under paragraph (d) of this section.

(4) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

40 CFR 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see Section 123.25).

The following conditions, in addition to those set forth in Section 122.41, apply to all NPDES permits within the categories specified below:

(a) Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under Section 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Sec. 122.21(g)(7); or

(iv) The level established by the Director in accordance with Section 122.44(f).

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
(i) Five hundred micrograms per liter (500 µg/l);

(ii) One milligram per liter (1 mg/l) for antimony;

(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 122.21(g)(7).

(iv) The level established by the Director in accordance with Sec. 122.44(f).

(b) Publicly owned treatment works. All POTWs must provide adequate notice to the Director of the following:

(1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; and

(2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the

permit.

(3) For purposes of this paragraph, adequate notice shall include information on

(i) the quality and quantity of effluent introduced into the POTW, and

(ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(c) Municipal separate storm sewer systems. The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under Sec. 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:

(1) The status of implementing the components of the storm water management program that are established as permit conditions;

(2) Proposed changes to the storm water management programs that are established as permit condition. Such proposed changes shall be consistent with Section 122.26(d)(2)(iii) of this part; and

(3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under Sections 122.26(d)(2)(iv) and (d)(2)(v) of this part;

(4) A summary of data, including monitoring data, that is accumulated throughout the reporting y year;

(5) Annual expenditures and budget for year following each annual report;

(6) A summary describing the number and nature of enforcement actions, inspections, and public education programs;

(7) Identification of water quality improvements or degradation;

(d) Storm water discharges. The initial permits for discharges composed entirely of storm water issued pursuant to Section 122.26(e)(7) of this part shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three years after the date of issuance of the permit.

40 CFR 122.43 Establishing permit conditions (applicable to State programs, see Section 123.25)

40 CFR 122.43(a) through (c).

40 CFR 122.44 Establishing limitations, standards, and other permit conditions (applicable to State programs, see Section 123.25).

40 CFR 122.44(a) through (s).

40 CFR 122.45 Calculating NPDES permit conditions (applicable to State programs, see Section 123.25).

40 CFR 122.45(a) through (h).

40 CFR 122.46 Duration of permits (applicable to State programs, see Section 123.25).

40 CFR 122.46(a) through (e).

40 CFR 122.47 Schedules of compliance (applicable to State programs. see Section 123.25).

40 CFR 122.47(a) and (b).

40 CFR 122.48 Requirements for recording and reporting of monitoring results (applicable to State programs, see Section 123.25).

40 CFR 122.48(a) through (c).

40 CFR 122.49 Considerations under Federal law.

40 CFR 122.49(a) through (g).

40 CFR 122.50 Disposal into wells, into publicly owned treatment works (applicable to State programs, see Section 123.25).

40 CFR 122.50(a) through (c).

40 CFR 122.61 Transfer of permits (applicable to State programs, see Section 123.25).

40 CFR 122.61(a) through (b).

40 CFR 122.62 Modification or revocation and reissuance of permits (applicable to State programs, see Section 123.25).

40 CFR 122.62(a) through (b).

40 CFR 122.63 Minor modifications of permits.

40 CFR 122.63(a) through (g).

40 CFR 122.64 Termination of permits (applicable to State programs, see Section 123.25).

40 CFR 122.64(a) through (b)

Note: The sections of 40 CFR Standard Provisions listed above that are not quoted verbatum can be obtained through the following website: www.access.gpo.gov.

ORDER NO. 2001-96

ATTACHMENT C

ENCLOSED BAYS AND ESTUARIES POLICY
DISCHARGE PROHIBITIONS

1. New discharges of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, which are not consistently treated and discharged in a manner that would enhance the quality of receiving waters above that which would occur in the absence of the discharge, shall be prohibited.

2. The discharge of municipal and industrial waste sludge and untreated sludge digester supernatant, centrate, or filtrate to enclosed bays and estuaries shall be prohibited.

3. The deposition of rubbish or refuse into surface waters or at any place where they would be eventually transported to enclosed bays or estuaries shall be prohibited.

4. The direct or indirect discharge of silt, sand, soil clay, or other earthen materials from onshore operations including mining, construction, agriculture, and lumbering, in quantities that unreasonably affect or threaten to affect beneficial uses shall be prohibited.

5. The discharge of materials of petroleum origin in sufficient quantities to be visible or in violation of waste discharge requirements shall be prohibited, except when such discharges are conducted for scientific purposes. Such testing must be approved by the Regional Board and the Department of Fish and Game.

6. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste shall be prohibited.

7. The discharge or by-passing of untreated waste to bays and estuaries shall be prohibited.

ORDER NO. 2001-96

ATTACHMENT D

40 CFR 131.38
ESTABLISHMENT OF NUMERIC CRITERIA FOR PRIORITY TOXIC POLLUTANTS FOR THE STATE OF CALIFORNIA.

(a) Scope. This section promulgates criteria for priority toxic pollutants in the State of California for inland surface waters and enclosed bays and estuaries. This section also contains a compliance schedule provision.

(b) (1) Criteria for Priority Toxic Pollutants in the State of California is described in this table.

Dated: April 27, 2000.

Carol Browner,

Administrator.

For the reasons set out in the preamble, part 131 of chapter I of title 40 of the Code of Federal Regulations is amended as follows:

PART 131—WATER QUALITY STANDARDS

1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

Subpart D—[Amended]

2. Section 131.38 is added to subpart D to read as follows:

§ 131.38 Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California.

(a) *Scope.* This section promulgates criteria for priority toxic pollutants in the State of California for inland surface waters and enclosed bays and estuaries. This section also contains a compliance schedule provision.

(b)(1) Criteria for Priority Toxic Pollutants in the State of California as described in the following table:

BILLING CODE 6560–50–P

A		B Freshwater		C Saltwater		D Human Health (10^{-6} risk for carcinogens) For consumption of:	
# Compound	CAS Number	Criterion Maximum Conc. [d] B1	Criterion Continuous Conc. [d] B2	Criterion Maximum Conc. [d] C1	Criterion Continuous Conc. [d] C2	Water & Organisms (µg/L) D1	Organisms Only (µg/L) D2
1. Antimony	7440360					14 a,s	4300 a,t
2. Arsenic [b]	7440382	340 i,m,w	150 i,m,w	69 i,m	36 i,m		
3. Beryllium	7440417					n	n
4. Cadmium [b]	7440439	4.3 e,i,m,w,x	2.2 e,i,m,w	42 i,m	9.3 i,m	n	n
5a. Chromium (III)	16065831	550 e,i,m,o	180 e,i,m,o			n	n
5b. Chromium (VI) [b]	18540299	16 i,m,w	11 i,m,w	1100 i,m	50 i,m	n	n
6. Copper [b]	7440508	13 e,i,m,w,x	9.0 e,i,m,w	4.8 i,m	3.1 i,m	1300	
7. Lead [b]	7439921	65 e,i,m	2.5 e,i,m	210 i,m	8.1 i,m	n	n
8. Mercury [b]	7439976	[Reserved]	[Reserved]	[Reserved]	[Reserved]	0.050 a	0.051 a
9. Nickel [b]	7440020	470 e,i,m,w	52 e,i,m,w	74 i,m	8.2 i,m	610 a	4600 a
10. Selenium [b]	7782492	[Reserved] p	5.0 q	290 i,m	71 i,m	n	n
11. Silver [b]	7440224	3.4 e,i,m		1.9 i,m			
12. Thallium	7440280					1.7 a,s	6.3 a,t
13. Zinc [b]	7440666	120 e,i,m,w,x	120 e,i,m,w	90 i,m	81 i,m		
14. Cyanide [b]	57125	22 o	5.2 o	1 r	1 r	700 a	220,000 a,j
15. Asbestos	1332214					7,000,000 fibers/L k,s	
16. 2,3,7,8-TCDD (Dioxin)	1746016					0.000000013 c	0.000000014 c
17. Acrolein	107028					320 s	780 t
18. Acrylonitrile	107131					0.059 a,c,s	0.66 a,c,t
19. Benzene	71432					1.2 a,c	71 a,c
20. Bromoform	75252					4.3 a,c	360 a,c
21. Carbon Tetrachloride	56235					0.25 a,c,s	4.4 a,c,t
22. Chlorobenzene	108907					680 a,s	21,000 a,j,t
23. Chlorodibromomethane	124481					0.401 a,c	34 a,c
24. Chloroethane	75003						
25. 2-Chloroethylvinyl Ether	110758						

26. Chloroform	67663					[Reserved]	[Reserved]
27. Dichlorobromomethane	75274					0.56 a,c	46 a,c
28. 1,1-Dichloroethane	75343						
29. 1,2-Dichloroethane	107062					0.38 a,c,s	99 a,c,t
30. 1,1-Dichloroethylene	75354					0.057 a,c,s	3.2 a,c,t
31. 1,2-Dichloropropane	78875					0.52 a	39 a
32. 1,3-Dichloropropylene	542756					10 a,s	1,700 a,t
33. Ethylbenzene	100414					3,100 a,s	29,000 a,t
34. Methyl Bromide	74839					48 a	4,000 a
35. Methyl Chloride	74873					n	n
36. Methylene Chloride	75092					4.7 a,c	1,600 a,c
37. 1,1,2,2-Tetrachloroethane	79345					0.17 a,c,s	11 a,c,t
38. Tetrachloroethylene	127184					0.8 c,s	8.85 c,t
39. Toluene	108883					6,800 a	200,000 a
40. 1,2-Trans-Dichloroethylene	156605					700 a	140,000 a
41. 1,1,1-Trichloroethane	71556					n	n
42. 1,1,2-Trichloroethane	79005					0.60 a,c,s	42 a,c,t
43. Trichloroethylene	79016					2.7 c,s	81 c,t
44. Vinyl Chloride	75014					2 c,s	525 c,t
45. 2-Chlorophenol	95578					120 a	400 a
46. 2,4-Dichlorophenol	120832					93 a,s	790 a,t
47. 2,4-Dimethylphenol	105679					540 a	2,300 a
48. 2-Methyl-4,6-Dinitrophenol	534521					13.4 s	765 t
49. 2,4-Dinitrophenol	51285					70 a,s	14,000 a,t
50. 2-Nitrophenol	88755						
51. 4-Nitrophenol	100027						
52. 3-Methyl-4-Chlorophenol	59507						
53. Pentachlorophenol	87865	19 f,w	15 f,w	13	7.9	0.28 a,c	8.2 a,c,j
54. Phenol	108952					21,000 a	4,600,000 a,j,t
55. 2,4,6-Trichlorophenol	88062					2.1 a,c	6.5 a,c
56. Acenaphthene	83329					1,200 a	2,700 a
57. Acenaphthylene	208968						
58. Anthracene	120127					9,600 a	110,000 a

59. Benzidine	92875					0.00012 a,c,s	0.00054 a,c,t
60. Benzo(a)Anthracene	56553					0.0044 a,c	0.049 a,c
61. Benzo(a)Pyrene	50328					0.0044 a,c	0.049 a,c
62. Benzo(b)Fluoranthene	205992					0.0044 a,c	0.049 a,c
63. Benzo(ghi)Perylene	191242						
64. Benzo(k)Fluoranthene	207089					0.0044 a,c	0.049 a,c
65. Bis(2-Chloroethoxy)Methane	111911						
66. Bis(2-Chloroethyl)Ether	111444					0.031 a,c,s	1.4 a,c,t
67. Bis(2-Chloroisopropyl)Ether	39638329					1,400 a	170,000 a,t
68. Bis(2-Ethylhexyl)Phthalate	117817					1.8 a,c,s	5.9 a,c,t
69. 4-Bromophenyl Phenyl Ether	101553						
70. Butylbenzyl Phthalate	85687					3,000 a	5,200 a
71. 2-Chloronaphthalene	91587					1,700 a	4,300 a
72. 4-Chlorophenyl Phenyl Ether	7005723						
73. Chrysene	218019					0.0044 a,c	0.049 a,c
74. Dibenzo(a,h)Anthracene	53703					0.0044 a,c	0.049 a,c
75. 1,2 Dichlorobenzene	95501					2,700 a	17,000 a
76. 1,3 Dichlorobenzene	541731					400	2,600
77. 1,4 Dichlorobenzene	106467					400	2,600
78. 3,3'-Dichlorobenzidine	91941					0.04 a,c,s	0.077 a,c,t
79. Diethyl Phthalate	84662					23,000 a,s	120,000 a,t
80. Dimethyl Phthalate	131113					313,000 s	2,900,000 t
81. Di-n-Butyl Phthalate	84742					2,700 a,s	12,000 a,t
82. 2,4-Dinitrotoluene	121142					0.11 c,s	9.1 c,t
83. 2,6-Dinitrotoluene	606202						
84 Di-n-Octyl Phthalate	117840						
85. 1,2-Diphenylhydrazine	122667					0.040 a,c,s	0.54 a,c,t
86. Fluoranthene	206440					300 a	370 a
87. Fluorene	86737					1,300 a	14,000 a
88. Hexachlorobenzene	118741					0.00075 a,c	0.00077 a,c
89. Hexachlorobutadiene	87683					0.44 a,c,s	50 a,c,t
90. Hexachlorocyclopentadiene	77474					240 a,s	17,000 a,j,t
91. Hexachloroethane	67721					1.9 a,c,s	8.9 a,c,t

92. Indeno(1,2,3-cd) Pyrene	193395					0.0044 a,c	0.049 a,c
93. Isophorone	78591					8.4 c,s	600 c,t
94. Naphthalene	91203						
95. Nitrobenzene	98953					17 a,s	1,900 a,j,t
96. N-Nitrosodimethylamine	62759					0.00069 a,c,s	8.1 a,c,t
97. N-Nitrosodi-n-Propylamine	621647					0.005 a	1.4 a
98. N-Nitrosodiphenylamine	86306					5.0 a,c,s	16 a,c,t
99. Phenanthrene	85018						
100. Pyrene	129000					960 a	11,000 a
101. 1,2,4-Trichlorobenzene	120821						
102. Aldrin	309002	3 g		1.3 g		0.00013 a,c	0.00014 a,c
103. alpha-BHC	319846					0.0039 a,c	0.013 a,c
104. beta-BHC	319857					0.014 a,c	0.046 a,c
105. gamma-BHC	58899	0.95 w		0.16 g		0.019 c	0.063 c
106. delta-BHC	319868						
107. Chlordane	57749	2.4 g	0.0043 g	0.09 g	0.004 g	0.00057 a,c	0.00059 a,c
108. 4,4'-DDT	50293	1.1 g	0.001 g	0.13 g	0.001 g	0.00059 a,c	0.00059 a,c
109. 4,4'-DDE	72559					0.00059 a,c	0.00059 a,c
110. 4,4'-DDD	72548					0.00083 a,c	0.00084 a,c
111. Dieldrin	60571	0.24 w	0.056 w	0.71 g	0.0019 g	0.00014 a,c	0.00014 a,c
112. alpha-Endosulfan	959988	0.22 g	0.056 g	0.034 g	0.0087 g	110 a	240 a
113. beta-Endosulfan	33213659	0.22 g	0.056 g	0.034 g	0.0087 g	110 a	240 a
114. Endosulfan Sulfate	1031078					110 a	240 a
115. Endrin	72208	0.086 w	0.036 w	0.037 g	0.0023 g	0.76 a	0.81 a,j
116. Endrin Aldehyde	7421934					0.76 a	0.81 a,j
117. Heptachlor	76448	0.52 g	0.0038 g	0.053 g	0.0036 g	0.00021 a,c	0.00021 a,c
118. Heptachlor Epoxide	1024573	0.52 g	0.0038 g	0.053 g	0.0036 g	0.00010 a,c	0.00011 a,c
119-125. Polychlorinated biphenyls (PCBs)			0.014 u		0.03 u	0.00017 c,v	0.00017 c,v
126. Toxaphene	8001352	0.73	0.0002	0.21	0.0002	0.00073 a,c	0.00075 a,c
Total Number of Criteria [h]		22	21	22	20	92	90

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Footnotes to Table in Parargraph (b)(1):

a. Criteria revised to reflect the Agency q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of October 1, 1996. The fish tissue bioconcentration factor (BCF) from the 1980 documents was retained in each case.

b. Criteria apply to California waters except for those waters subject to objectives in Tables III–2A and III–2B of the San Francisco Regional Water Quality Control Board's (SFRWQCB) 1986 Basin Plan, that were adopted by the SFRWQCB and the State Water Resources Control Board, approved by EPA, and which continue to apply.

c. Criteria are based on carcinogenicity of 10 (-6) risk.

d. Criteria Maximum Concentration (CMC) equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects. Criteria Continuous Concentration (CCC) equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. ug/L equals micrograms per liter.

e. Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. The equations are provided in matrix at paragraph (b)(2) of this section. Values displayed above in the matrix correspond to a total hardness of 100 mg/l.

f. Freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Values displayed above in the matrix correspond to a pH of 7.8. CMC = exp(1.005(pH) − 4.869). CCC = exp(1.005(pH) − 5.134).

g. This criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5–80–019), Chlordane (EPA 440/5–80–027), DDT (EPA 440/5–80–038), Endosulfan (EPA 440/5–80–046), Endrin (EPA 440/5–80–047), Heptachlor (440/5–80–052), Hexachlorocyclohexane (EPA 440/5–80–054), Silver (EPA 440/5–80–071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a "CMC" derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

h. These totals simply sum the criteria in each column. For aquatic life, there are 23 priority toxic pollutants with some type of freshwater or saltwater, acute or chronic criteria. For human health, there are 92 priority toxic pollutants with either "water + organism" or "organism only" criteria. Note that these totals count chromium as one pollutant even though EPA has developed criteria based on two valence states. In the matrix, EPA has assigned numbers 5a and 5b to the criteria for chromium to reflect the fact that the list of 126 priority pollutants includes only a single listing for chromium.

i. Criteria for these metals are expressed as a function of the water-effect ratio, WER, as defined in paragraph (c) of this section. CMC = column B1 or C1 value x WER; CCC = column B2 or C2 value x WER.

j. No criterion for protection of human health from consumption of aquatic organisms (excluding water) was presented in the 1980 criteria document or in the 1986 Quality Criteria for Water. Nevertheless, sufficient information was presented in the 1980 document to allow a calculation of a criterion, even though the results of such a calculation were not shown in the document.

k. The CWA 304(a) criterion for asbestos is the MCL.

l. [Reserved]

m. These freshwater and saltwater criteria for metals are expressed in terms of the dissolved fraction of the metal in the water column. Criterion values were calculated by using EPA's Clean Water Act 304(a) guidance values (described in the total recoverable fraction) and then applying the conversion factors in § 131.36(b)(1) and (2).

n. EPA is not promulgating human health criteria for these contaminants. However, permit authorities should address these contaminants in NPDES permit actions using the State's existing narrative criteria for toxics.

o. These criteria were promulgated for specific waters in California in the National Toxics Rule ("NTR"), at § 131.36. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries and waters of the State defined as inland, i.e., all surface waters of the State not ocean waters. These waters specifically include the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This section does not apply instead of the NTR for this criterion.

p. A criterion of 20 ug/l was promulgated for specific waters in California in the NTR and was promulgated in the total recoverable form. The specific waters to which the NTR criterion applies include: Waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to the mouth of the Merced River. This section does not apply instead of the NTR for this criterion. The State of California adopted and EPA approved a site specific criterion for the San Joaquin River, mouth of Merced to Vernalis; therefore, this section does not apply to these waters.

q. This criterion is expressed in the total recoverable form. This criterion was promulgated for specific waters in California in the NTR and was promulgated in the total recoverable form. The specific waters to which the NTR criterion applies include: Waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to Vernalis. This criterion does not apply instead of the NTR for these waters. This criterion applies to additional waters of the United States in the State of California pursuant to 40 CFR 131.38(c). The State of California adopted and EPA approved a site-specific criterion for the Grassland Water District, San Luis National Wildlife Refuge, and the Los Banos State Wildlife Refuge; therefore, this criterion does not apply to these waters.

r. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries including the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This section does not apply instead of the NTR for these criteria.

s. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the Sacramento-San Joaquin Delta and waters of the State defined as inland (*i.e.*, all surface waters of the State not bays or estuaries or ocean) that include a MUN use designation. This section does not apply instead of the NTR for these criteria.

t. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays and estuaries including San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of the State defined as inland (i.e., all surface waters of the State not bays or estuaries or ocean) without a MUN use designation. This section does not apply instead of the NTR for these criteria.

u. PCBs are a class of chemicals which include aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016, CAS numbers 53469219, 11097691, 11104282, 11141165, 12672296, 11096825, and 12674112, respectively. The aquatic life criteria apply to the sum of this set of seven aroclors.

v. This criterion applies to total PCBs, e.g., the sum of all congener or isomer or homolog or aroclor analyses.

w. This criterion has been recalculated pursuant to the 1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA–820-B–96–001, September 1996. See also Great Lakes Water Quality Initiative Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA–80–B–95–004, March 1995.

x. The State of California has adopted and EPA has approved site specific criteria for the Sacramento River (and tributaries) above Hamilton City; therefore, these criteria do not apply to these waters.

General Notes to Table in Paragraph (b)(1)

1. The table in this paragraph (b)(1) lists all of EPA's priority toxic pollutants whether or not criteria guidance are available. Blank spaces indicate the absence of national section 304(a) criteria guidance. Because of variations in chemical nomenclature systems, this listing of toxic pollutants does not duplicate the listing in Appendix A to 40 CFR Part 423–126 Priority Pollutants. EPA has added the Chemical Abstracts Service (CAS) registry numbers, which provide a unique identification for each chemical.

2. The following chemicals have organoleptic-based criteria recommendations that are not included on this chart: zinc, 3-methyl-4-chlorophenol.

3. Freshwater and saltwater aquatic life criteria apply as specified in paragraph (c)(3) of this section.

(2) Factors for Calculating Metals Criteria. Final CMC and CCC values should be rounded to two significant figures.

(i) $CMC = WER \times (Acute\ Conversion\ Factor) \times (\exp\{m_A[\ln(hardness)]+b_A\})$

(ii) $CCC = WER \times (Acute\ Conversion\ Factor) \times (\exp\{m_C[\ln(hardness)]+b_C\})$

(iii) Table 1 to paragraph (b)(2) of this section:

Metal	m_A	b_A	m_C	b_C
Cadmium	1.128	−3.6867	0.7852	−2.715
Copper	0.9422	−1.700	0.8545	−1.702
Chromium (III)	0.8190	3.688	0.8190	1.561
Lead	1.273	−1.460	1.273	−4.705
Nickel	0.8460	2.255	0.8460	0.0584
Silver	1.72	−6.52		
Zinc	0.8473	0.884	0.8473	0.884

Note to Table 1: The term "exp" represents the base e exponential function.

(iv) Table 2 to paragraph (b)(2) of this section:

Metal	Conversion factor (CF) for freshwater acute criteria	CF for freshwater chronic criteria	CF for saltwater acute criteria	CF [a] for saltwater chronic criteria
Antimony	[d]	[d]	[d]	[d]
Arsenic	1.000	1.000	1.000	1.000
Beryllium	[d]	[d]	[d]	[d]
Cadmium	[b] 0.944	[b] 0.909	0.994	0.994
Chromium (III)	0.316	0.860	[d]	[d]
Chromium (VI)	0.982	0.962	0.993	0.993
Copper	0.960	0.960	0.83	0.83
Lead	[b] 0.791	[b] 0.791	0.951	0.951
Mercury				
Nickel	0.998	0.997	0.990	0.990
Selenium		[c]	0.998	0.998
Silver	0.85	[d]	0.85	[d]
Thallium	[d]	[d]	[d]	[d]
Zinc	0.978	0.986	0.946	0.946

Footnotes to Table 2 of Paragraph (b)(2):

[a] Conversion Factors for chronic marine criteria are not currently available. Conversion Factors for acute marine criteria have been used for both acute and chronic marine criteria.

[b] Conversion Factors for these pollutants in freshwater are hardness dependent. CFs are based on a hardness of 100 mg/l as calcium carbonate ($CaCO_3$). Other hardness can be used; CFs should be recalculated using the equations in table 3 to paragraph (b)(2) of this section.

[c] Bioaccumulative compound and inappropriate to adjust to percent dissolved.

[d] EPA has not published an aquatic life criterion value.

Note to Table 2 of Paragraph (b)(2): The term "Conversion Factor" represents the recommended conversion factor for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column. See "Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria", October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water available from Water Resource Center, USEPA, Mailcode RC4100, M Street SW, Washington, DC, 20460 and the note to § 131.36(b)(1).

(v) Table 3 to paragraph (b)(2) of this section:

	Acute	Chronic
Cadmium	CF=1.136672—[(ln {hardness}) (0.041838)]	CF = 1.101672—[(ln {hardness})(0.041838)]
Lead	CF=1.46203—[(ln {hardness})(0.145712)]	CF = 1.46203—[(ln {hardness})(0.145712)]

(c) *Applicability.* (1) The criteria in paragraph (b) of this section apply to the State's designated uses cited in paragraph (d) of this section and apply concurrently with any criteria adopted by the State, except when State regulations contain criteria which are more stringent for a particular parameter and use, or except as provided in footnotes p, q, and x to the table in paragraph (b)(1) of this section.

(2) The criteria established in this section are subject to the State's general rules of applicability in the same way and to the same extent as are other Federally-adopted and State-adopted numeric toxics criteria when applied to the same use classifications including mixing zones, and low flow values below which numeric standards can be exceeded in flowing fresh waters.

(i) For all waters with mixing zone regulations or implementation procedures, the criteria apply at the appropriate locations within or at the boundary of the mixing zones; otherwise the criteria apply throughout the water body including at the point of discharge into the water body.

(ii) The State shall not use a low flow value below which numeric standards can be exceeded that is less stringent than the flows in Table 4 to paragraph (c)(2) of this section for streams and rivers.

(iii) Table 4 to paragraph (c)(2) of this section:

Criteria	Design flow
Aquatic Life Acute Criteria (CMC).	1 Q 10 or 1 B 3
Aquatic Life Chronic Criteria (CCC).	7 Q 10 or 4 B 3
Human Health Criteria.	Harmonic Mean Flow

Note to Table 4 of Paragraph (c)(2): 1. CMC (Criteria Maximum Concentration) is the water quality criteria to protect against acute effects in aquatic life and is the highest instream concentration of a priority toxic pollutant consisting of a short-term average not to be exceeded more than once every three years on the average.

2. CCC (Continuous Criteria Concentration) is the water quality criteria to protect against chronic effects in aquatic life and is the highest in stream concentration of a priority toxic pollutant consisting of a 4-day average not to be exceeded more than once every three years on the average.

3. 1 Q 10 is the lowest one day flow with an average recurrence frequency of once in 10 years determined hydrologically.

4. 1 B 3 is biologically based and indicates an allowable exceedence of once every 3 years. It is determined by EPA's computerized method (DFLOW model).

5. 7 Q 10 is the lowest average 7 consecutive day low flow with an average recurrence frequency of once in 10 years determined hydrologically.

6. 4 B 3 is biologically based and indicates an allowable exceedence for 4 consecutive days once every 3 years. It is determined by EPA's computerized method (DFLOW model).

(iv) If the State does not have such a low flow value below which numeric standards do not apply, then the criteria included in paragraph (d) of this section apply at all flows.

(v) If the CMC short-term averaging period, the CCC four-day averaging period, or once in three-year frequency is inappropriate for a criterion or the site to which a criterion applies, the State may apply to EPA for approval of an alternative averaging period, frequency, and related design flow. The State must submit to EPA the bases for any alternative averaging period, frequency, and related design flow. Before approving any change, EPA will publish for public comment, a document proposing the change.

(3) The freshwater and saltwater aquatic life criteria in the matrix in paragraph (b)(1) of this section apply as follows:

(i) For waters in which the salinity is equal to or less than 1 part per thousand 95% or more of the time, the applicable criteria are the freshwater criteria in Column B;

(ii) For waters in which the salinity is equal to or greater than 10 parts per thousand 95% or more of the time, the applicable criteria are the saltwater criteria in Column C except for selenium in the San Francisco Bay estuary where the applicable criteria are the freshwater criteria in Column B (refer to footnotes p and q to the table in paragraph (b)(1) of this section); and

(iii) For waters in which the salinity is between 1 and 10 parts per thousand as defined in paragraphs (c)(3)(i) and (ii) of this section, the applicable criteria are the more stringent of the freshwater or saltwater criteria. However, the Regional Administrator may approve the use of the alternative freshwater or saltwater criteria if scientifically defensible information and data demonstrate that on a site-specific basis the biology of the water body is dominated by freshwater aquatic life and that freshwater criteria are more appropriate; or conversely, the biology of the water body is dominated by saltwater aquatic life and that saltwater criteria are more appropriate. Before approving any change, EPA will publish for public comment a document proposing the change.

(4) *Application of metals criteria.* (i) For purposes of calculating freshwater aquatic life criteria for metals from the equations in paragraph (b)(2) of this section, for waters with a hardness of 400 mg/l or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations. For waters with a hardness of over 400 mg/l as calcium carbonate, a hardness of 400 mg/l as calcium carbonate shall be used with a default Water-Effect Ratio (WER) of 1, or the actual hardness of the ambient surface water shall be used with a WER. The same provisions apply for calculating the metals criteria for the comparisons provided for in paragraph (c)(3)(iii) of this section.

(ii) The hardness values used shall be consistent with the design discharge conditions established in paragraph (c)(2) of this section for design flows and mixing zones.

(iii) The criteria for metals (compounds #1—#13 in the table in paragraph (b)(1) of this section) are expressed as dissolved except where otherwise noted. For purposes of calculating aquatic life criteria for metals from the equations in footnote i to the table in paragraph (b)(1) of this section and the equations in paragraph (b)(2) of this section, the water effect ratio is generally computed as a specific pollutant's acute or chronic toxicity value measured in water from the site covered by the standard, divided by the respective acute or chronic toxicity value in laboratory dilution water. To use a water effect ratio other than the default of 1, the WER must be determined as set forth in Interim Guidance on Determination and Use of Water Effect Ratios, U.S. EPA Office of Water, EPA–823–B–94–001, February 1994, or alternatively, other scientifically defensible methods adopted by the State as part of its water quality standards program and approved by EPA. For calculation of criteria using site-specific values for both the hardness and the water effect ratio, the hardness used in the equations in paragraph (b)(2) of this section must be determined as required in paragraph (c)(4)(ii) of this section. Water hardness must be calculated from the measured calcium and magnesium ions present, and the ratio of calcium to magnesium should be approximately the same in standard laboratory toxicity testing water as in the site water.

(d)(1) Except as specified in paragraph (d)(3) of this section, all waters assigned any aquatic life or human health use classifications in the Water Quality Control Plans for the various Basins of the State ("Basin Plans") adopted by the California State Water Resources Control Board ("SWRCB"), except for ocean waters covered by the Water Quality Control Plan for Ocean Waters of California ("Ocean Plan") adopted by the SWRCB with resolution Number 90–27 on March 22, 1990, are subject to the criteria in paragraph (d)(2) of this section, without exception. These criteria apply to waters identified in the Basin Plans. More particularly, these criteria apply to waters identified in the Basin Plan chapters designating beneficial uses for waters within the region. Although the State has adopted several use designations for each of these waters, for purposes of this action, the specific standards to be applied in paragraph (d)(2) of this section are based on the presence in all waters of some aquatic life designation and the presence or absence of the MUN use designation (municipal and domestic supply). (See Basin Plans for more detailed use definitions.)

(2) The criteria from the table in paragraph (b)(1) of this section apply to the water and use classifications defined in paragraph (d)(1) of this section as follows:

Water and use classification	Applicable criteria
(i) All inland waters of the United States or enclosed bays and estuaries that are waters of the United States that include a MUN use designation.	(A) Columns B1 and B2—all pollutants (B) Columns C1 and C2—all pollutants (C) Column D1—all pollutants
(ii) All inland waters of the United States or enclosed bays and estuaries that are waters of the United States that do not include a MUN use designation.	(A) Columns B1 and B2—all pollutants (B) Columns C1 and C2—all pollutants (C) Column D2—all pollutants

(3) Nothing in this section is intended to apply instead of specific criteria, including specific criteria for the San Francisco Bay estuary, promulgated for California in the National Toxics Rule at § 131.36.

(4) The human health criteria shall be applied at the State-adopted 10 (−6) risk level.

(5) Nothing in this section applies to waters located in Indian Country.

(e) *Schedules of compliance.* (1) It is presumed that new and existing point source dischargers will promptly comply with any new or more restrictive water quality-based effluent limitations ("WQBELs") based on the water quality criteria set forth in this section.

(2) When a permit issued on or after May 18, 2000 to a new discharger contains a WQBEL based on water quality criteria set forth in paragraph (b) of this section, the permittee shall comply with such WQBEL upon the commencement of the discharge. A new discharger is defined as any building, structure, facility, or installation from which there is or may be a "discharge of pollutants" (as defined in 40 CFR 122.2) to the State of California's inland surface waters or enclosed bays and estuaries, the construction of which commences after May 18, 2000.

(3) Where an existing discharger reasonably believes that it will be infeasible to promptly comply with a new or more restrictive WQBEL based on the water quality criteria set forth in this section, the discharger may request approval from the permit issuing authority for a schedule of compliance.

(4) A compliance schedule shall require compliance with WQBELs based on water quality criteria set forth in paragraph (b) of this section as soon as possible, taking into account the dischargers' technical ability to achieve compliance with such WQBEL.

(5) If the schedule of compliance exceeds one year from the date of permit issuance, reissuance or modification, the schedule shall set forth interim requirements and dates for their achievement. The dates of completion between each requirement may not exceed one year. If the time necessary for completion of any requirement is more than one year and is not readily divisible into stages for completion, the permit shall require, at a minimum, specified dates for annual submission of progress reports on the status of interim requirements.

(6) In no event shall the permit issuing authority approve a schedule of compliance for a point source discharge which exceeds five years from the date of permit issuance, reissuance, or modification, whichever is sooner. Where shorter schedules of compliance are prescribed or schedules of compliance are prohibited by law, those provisions shall govern.

(7) If a schedule of compliance exceeds the term of a permit, interim permit limits effective during the permit shall be included in the permit and addressed in the permit's fact sheet or statement of basis. The administrative record for the permit shall reflect final permit limits and final compliance dates. Final compliance dates for final permit limits, which do not occur during the term of the permit, must occur within five years from the date of issuance, reissuance or modification of the permit which initiates the compliance schedule. Where shorter schedules of compliance are prescribed or schedules of compliance are prohibited by law, those provisions shall govern.

(8) The provisions in this paragraph (e), Schedules of compliance, shall expire on May 18, 2005.

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM 2001-96
FOR
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES FROM CONSTRUCTION, REMEDIATION, AND PERMANENT GROUNDWATER EXTRACTION PROJECTS
TO
SURFACE WATERS WITHIN THE SAN DIEGO REGION EXCEPT FOR SAN DIEGO BAY

A. PURPOSE

This monitoring program is intended to:

- Document short-term and long-term effects of the discharge on receiving waters, sediments, biota, and beneficial uses of the receiving water.
- Determine compliance with NPDES permit terms and conditions.
- Be used to determine compliance with water quality objectives.

B. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at monitoring points that ensure the sample is representative of the discharge and, unless otherwise directed, before the effluent joins or is diluted by any other waste stream, body of water, or substance. The Regional Board may specify the monitoring point in the Enrollment Letter. Monitoring points shall not be changed without notification to, and the approval of, the Regional Board.

2. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified by this Order.

3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board.

4. Monitoring results must be reported in a format developed by the Enrollee and subject to approval of the Regional Board (Section B.7).
5. If the discharger monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this

monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.

6. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

7. Records of monitoring information shall include:

    a. The date, exact place, and time of sampling or measurements;

    b. The individual(s) who performed the sampling or measurement;

    c. The date(s) analyses were performed;

    d. The individual(s) who performed analyses;

    e. The analytical techniques or method used; and

    f. The results of such analyses.

8. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Regional Board, in this Order or the Enrollment Letter.

9. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

10. The discharger shall report all instances of noncompliance not reported under Reporting Requirement No. H.5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirements No. H.5.

11. The monitoring reports shall be signed by an authorized person as required by Reporting Requirements No. H.12.

12. A composite sample is defined as a combination of at least 8 sample aliquots of at least 100 milliliters each, collected at periodic intervals during the operating hours of a facility over a 24-hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

13. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

14. For every item where the requirements are not met, the discharger shall submit a statement of actions undertaken or proposed to be taken, which will bring the discharge into full compliance with the requirements in the shortest time feasible, and submit a timetable for implementation of such actions.

C. TREATMENT SYSTEM STATUS

The daily status (e.g., onsite, in operation/on standby, etc.) of any treatment systems used to achieve compliance with Tentative Order No. 2001-96 and the associated Enrollment Letter, shall be reported monthly.

D. GROUNDWATER DISCHARGE MONITORING

1. For discharges associated with gasoline or diesel underground or above ground storage tanks (Remediation Projects) (as determined by the Regional Board), the discharge monitoring shall be conducted as listed below. For remediation of groundwaters containing individual solvents (e.g. trichloroethylene, tetrachloroethane, etc.) not associated with fuel products, or other substances with effluent concentration limitations in Tentative Order No. 2001-96, the monitoring requirements may be modified in the Enrollment Letter to include a sampling frequency of once every two weeks for the individual compound(s) present in lieu of benzene, ethylbenzene, toluene, and xylene (collectively BTEX) monitoring requirements, provided that BTEX are not present, and the results reported monthly:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	NA	daily	monthly
Total Nitrogen[1]	mg/L	grab	quarterly	quarterly
	lb/d	"	"	"
Total Phosphorus[1]	mg/L	"	"	"
	lb/d	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	quarterly	quarterly
	lb/d	"	"	"

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Hydrogen Sulfide	µg/L	grab	semiannually	semiannually
	lb/d	"	"	"
Total Residual Chloride (TRC)[2]	µg/L	"	daily if chlorinating	monthly
	lb/d	"		"
pH	Units	"	monthly	monthly
Benzene [CTR]	µg/L	"	every 2 weeks	monthly
	lb/d	"		"
Ethylbenzene [CTR]	µg/L	"	"	"
	lb/d	"	"	"

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units; µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day; TUc = chronic toxicity units; lb/d = pounds per day

Toluene [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Xylene	µg/L	"	"	"
	lb/d	"	"	"
MTBE	µg/L	"	"	"
Total Petroleum Hydrocarbons[3]	µg/L	"	monthly	monthly
	lb/d	"	"	"
Tributyltin	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Arsenic [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Cadmium [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Chromium [4, CTR] (hexavalent)	µg/L	"	"	"
	lb/d	"	"	"
Copper [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Lead [CTR]	µg/L	"	quarterly	quarterly
	lb/d	"	"	"
Mercury [CTR]	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Nickel [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Silver [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Zinc [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Cyanide [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds (non-chlorinated)	µg/L	"	"	"
	lb/d	"	"	"

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Chlorinated Phenolics	µg/L	grab	semiannually	semiannually
	lb/d	"	"	"
Acute Toxicity	TUa	"	quarterly	quarterly
Chronic Toxicity[5]	TUc	"	"	"
1,1,2,2-Tetrachloroethane (PCA)[6, CTR]	µg/L	"	semiannually	semiannually
1,1,1-Trichloroethane (TCA)[6, CTR]	mg/L	"	"	"
1,1,2-Trichloroethane (TCA)[6, CTR]	mg/L	"	"	"
1,2-Dichloroethane[6, CTR]	µg/L	"	"	"

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units; µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day; TUc = chronic toxicity units; lb/d = pounds per day

Tetrachloroethylene (PCE)[6, CTR]	µg/L	"	"	"
Trichloroethylene (TCE)[6] [CTR]	µg/L	"	"	"
Vinyl Chloride[6, CTR]	µg/L	"	"	"
Carbon Tetrachloride[6, CTR]	µg/L	"	"	"
Base/Neutrals[7]	µg/L	"	"	"
	lb/d	"	"	"
126 Priority Pollutants – Attachment D (Excluding Above Marked Pollutants	"	"	"	

2. For discharges which are not associated with gasoline or diesel underground or above ground storage tanks (as determined by the Regional Board), discharge monitoring shall be conducted as follows[8]:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	na	daily	quarterly
Total Nitrogen[1]	mg/L	grab	quarterly	quarterly
Total Phosphorus[1]	mg/L	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended	mg/L	"	"	"
Solids	lb/d	"	"	"
Hydrogen Sulfide	mg/L	"	semiannually	semiannually
	lb/d	"	"	"
Total Residual	µg/L	"	daily if	monthly
Chlorine (TRC)[2]	lb/d	"	chlorinating	"
pH	Units	"	monthly	quarterly

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Total Petroleum	µg/L	grab	quarterly	quarterly
Hydrocarbons[3]	lb/d	"	"	"
MTBE	µg/L	"	"	"
Tributyltin	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Arsenic [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Cadmium [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Chromium [4, CTR]	µg/L	"	"	"
(hexavalent)	lb/d	"	"	"
Copper [CTR]	µg/L	"	"	"
	lb/d	"	"	"

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units
µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day
TUc = chronic toxicity units; lb/d = pounds per day

Lead [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Mercury [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Nickel [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Silver [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Zinc [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Cyanide [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds	µg/L	"	"	"
(non-chlorinated)	lb/d	"	"	"
Chlorinated Phenolics	µg/L	"	"	"
	lb/d	"	"	"
Acute Toxicity	TUa	"	quarterly	quarterly
Chronic Toxicity[5]	TUc	"	"	"
Base/Neutrals[7]	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
126 Priority Pollutants – Attachment D (Excluding Above Marked Pollutants)		"	"	"

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units; µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day; TUc = chronic toxicity units; lb/d = pounds per day

3. For long term discharges (greater than 6 months) in RURAL AREAS (as determined by the Regional Board), discharge monitoring shall be conducted as follows[8]:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	na	daily	monthly
Total Nitrogen[1]	mg/L	grab	quarterly	quarterly
Total Phosphorus[1]	mg/L	"	"	"
	lb/d	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	"	"
Hydrogen Sulfide	µg/L	"	"	"
Total Petroleum Hydrocarbons[3]	µg/L	"	"	"
Total Residual Chlorine (TRC)[2]	µg/L	"	daily if	monthly
	lb/d	"	chlorinating	"
pH	Units	"	monthly	quarterly
MTBE	µg/L	"	quarterly	quarterly
Acute Toxicity	TUa	"	semiannually	semiannually
Chronic Toxicity[5]	TUc	"	"	"
Base/Neutrals[7]	µg/L	"	"	"
126 Priority Pollutants – Attachment D		"	"	"

4. For short term (duration of 6 months or less at a particular groundwater extraction site) discharges in RURAL AREAS, monitoring shall be conducted as follows:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	na	daily	monthly
Total Nitrogen[1]	mg/L	grab	every two weeks	monthly
Total Phosphorus[1]	mg/L	"	"	"
	lb/d	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended Solids	mg/L	"	"	"
Hydrogen Sulfide	µg/L	"	"	"
Total Petroleum Hydrocarbons[3]	µg/L	"	every two weeks	monthly
Total Residual Chlorine (TRC)[2]	µg/L	"	daily if	"
	lb/d	"	chlorinating	"
pH	Units	"	monthly	quarterly
MTBE	µg/L	"	quarterly	"
			Analysis	Reporting

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units; µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day; TUc = chronic toxicity units; lb/d = pounds per day

Constituent	Units	Sample Type	Frequency	Frequency
Acute Toxicity	TUa	grab	semiannually	semiannually
Chronic Toxicity[5]	TUc	"	"	"
Base/Neutrals[7]	µg/L	"	"	"
126 Priority Pollutants – Attachment D		"	"	"

5. **For <u>short</u>** <u>term (duration of 6 months or less at a particular groundwater extraction site) discharges in URBAN AREAS</u>, discharge monitoring shall be conducted as follows[8]:

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Flowrate	gpd	NA	daily	monthly
Total Nitrogen[1]	mg/L	grab	every other week	"
Total Phosphorus[1]	mg/L	"	"	"
Settleable Solids	ml/L	"	"	"
	lb/d	"	"	"
Total Suspended	mg/L	"	"	"
Solids	lb/d	"	"	"
Hydrogen Sulfide	mg/L	"	"	"
	lb/d	"	"	"
Total Residual	µg/L	"	daily if	"
Chlorine (TRC)[2]	lb/d	"	chlorinating	"
pH	Units	"	every other week	"
Total Petroleum	µg/L	"	"	"
Hydrocarbons[3]	lb/d	"	"	"
MTBE	µg/L	"	"	"
Tributyltin	µg/L	"	semiannually	semiannually
	lb/d	"	"	"
Arsenic [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Cadmium [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Chromium [4, CTR]	µg/L	"	"	"
(hexavalent)	lb/d	"	"	"
Copper [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Lead [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Mercury [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Nickel [CTR]	µg/L	grab	"	"
	lb/d	"	"	"

Constituent	Units	Sample Type	Analysis Frequency	Reporting Frequency
Silver [CTR]	µg/L	"	semiannually	semiannually

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units; µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day; TUc = chronic toxicity units; lb/d = pounds per day

	lb/d	"	"	"
Zinc [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Cyanide [CTR]	µg/L	"	"	"
	lb/d	"	"	"
Phenolic Compounds	µg/L	"	"	"
(non-chlorinated)	lb/d	"	"	"
Chlorinated Phenolics	µg/L	"	"	"
	lb/d	"	"	"
Chronic Toxicity[5]	TUc	"	quarterly	quarterly
Base/Neutrals[7]	µg/L	"	"	"
	lb/d	"	"	"
126 Priority Pollutants – Attachment D (Excluding Above Marked Pollutants)		"	semiannually	semiannually

6. For discharges associated with Sewer System Replacement, or Wastewater Treatment Plant Construction or Expansion Projects, in addition to monitoring for those Constituents listed in Monitoring Provision D.1, D.2, D.3, D.4, or D.5, discharge monitoring shall be conducted for the following[8]:

Constituent	Units	Sample Type	Minimum Frequency Of Analysis	Reporting Frequency
Total Coliform	MPN100/ml	grab	weekly	Monthly
Fecal Coliform	"	"	"	"
Dissolved Oxygen	mg/L	"	"	"
126 Priority Pollutants – Attachment D	---	"	semiannually	Semiannually

E. RECEIVING WATER MONITORING

The discharger shall obtain a monthly upstream sample of the receiving water if the discharge is to a river or stream; or from an area unaffected by the discharge for other receiving waters, and analyze the sample for turbidity and report the results monthly. The turbidity of the receiving water is necessary to determine compliance of the effluent turbidity. The discharger shall also submit a monthly report discussing any turbidity plumes created by the discharge including a description (e.g., color, extent, duration, etc.) of any turbidity plumes.

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; NTU = nephelometric turbidity Units; µg/L = micrograms per liter; TUa = acute toxicity units; gpd = Gallons Per Day; TUc = chronic toxicity units; lb/d = pounds per day

For discharges to surf zones, in lieu of obtaining turbidity samples in unaffected areas, the discharger shall submit a monthly report describing (e.g., color, extent, duration, etc.) any turbidity plumes caused by the discharge.

The Regional Board may increase receiving water monitoring requirements on a case-by-case basis. Additional receiving water monitoring for individual discharges may be required, where necessary, to show that during the term of the discharge, applicable surface water quality objectives will be maintained.

For certain metals, the hardness of the receiving water is required to calculate the effluent limit, therefore the discharger shall measure the hardness of the receiving water at the same frequency as metals analysis.

F. ANNUAL SUMMARY OF MONITORING DATA

A summary of monitoring data for the previous year shall be submitted to the Regional Board previous to March 1st of each year. The report shall contain both tabular and graphical summaries of the previous year's data. If the duration of the discharge is six months or less, an annual summary is not required.

G. REPORT OF DISCHARGE TERMINATION

Within thirty days of the termination of the discharge, the discharger shall submit a letter to the Regional Board specifying the date the groundwater extraction waste discharge was terminated.

H. REPORTING FREQUENCY

Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

REPORTING FREQUENCY	REPORT PERIOD	REPORT DUE
Monthly	January, February March, April, May June, July, August September, October November, December	By the 30th day of the following month*.
Quarterly	January - March April - June July - September October - December	April 30 July 30 October 30 January 30
Semiannually	January - June July - December	July 30 January 30
Annual	January - December	March 1

* The monthly report for January is due no later than February 28th.

Monitoring Reports shall be submitted to the following address:

Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
Attn: Industrial Compliance Unit

John H. Robertus
Executive Officer
October 10, 2001

ENDNOTES

1. Analysis of nitrogen and phosphorus are not required for direct discharges to the surf zone.

2. Total Chlorine Residual must be monitored if any portion of the extraction waste stream is chlorinated.

3. Groundwater remediation projects involving only diesel fuels and groundwater dewatering operations may use the California Department of Health Services' recommended analytical procedure contained in the Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989 (LUFT Manual) for determining diesel total petroleum hydrocarbon concentrations (TPH - diesel) in the discharge unless other analytical methods are specified by the Regional Board. Groundwater remediation projects involving only gasoline may use standard analytical techniques contained in the LUFT Manual for the determination of TPH concentrations in the discharge unless other methods are specified by the Regional Board.

4. The hexavalent and trivalent chromium limits may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for hexavalent chromium, and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.

5. Discharges with a duration of 30 days or less at a particular groundwater extraction site shall conduct one acute toxicity test in lieu of chronic toxicity testing.

6. Use USEPA Method Number 624(GCMS) for these constituents. The Regional Board may waive monitoring requirements for these constituents in cases where the discharger identifies and requests use of an appropriate "indicator constituent" in lieu of these constituents.

7. "Base/Neutrals" are listed in 40 CFR 136.

8. For any discharge where gasoline, diesel, other petroleum product(s) or solvent based constituent(s) are encountered, knowingly or incidental to a construction or other project as a result of drawdown, the discharger shall conduct monitoring for those constituents in Monitoring Provision D.1 in addition to any other applicable monitoring Provision herein.

APPLICATION FOR:

GENERAL NPDES PERMIT
AUTHORIZATION FOR DISCHARGES OF
GROUNDWATER TO SURFACE WATERS

FOR USE WHEN APPLYING FOR
ENROLLMENT UNDER:

ORDER NO. 2000-90 (CAG919001)

AND

ORDER NO. 2001-96 (CAG919002)

California Regional Water Quality Control Board
San Diego Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb9/
9174 Sky Park Court, Suite 100 San Diego, California 92123
Phone (858) 467-2952 • FAX (858) 571-6972

Gray Davis
Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

APPLICATION REQUIREMENTS INFORMATION SHEET
FOR
GENERAL NPDES PERMIT AUTHORIZATION FOR GROUNDWATER EXTRACTION
AND SIMILAR WASTE DISCHARGES

This application package applies to discharges of groundwater to surface waters within the San Diego Region. This Regional Board has adopted two general NPDES permits which regulate groundwater extraction and similar waste discharges, including groundwater remediation projects, to surface waters within the San Diego Region. Regional Board Order No. 2000-90 regulates groundwater extraction and similar waste discharges to San Diego Bay and storm drains or other conveyance systems tributary thereto. Regional Board Order No. 2001-96 regulates groundwater extraction and similar waste discharges to surface waters within the San Diego Region, except for San Diego Bay.

1.) In order to obtain an authorization to discharge under the terms and conditions of one of these general permits, the following materials shall be submitted (60 days, or more, prior to the proposed start date is recommended):

a.) General permit authorization application, and attachments, including analysis of groundwater as specified by Application Requirements - Section F., of Order No. 2000-90 or 2001-96 (Attachment 1).

b.) Certification of compliance statement or Responsible Party letterhead (Attachment 2).

c.) For multiple dewatering sites, additional information as described by the attached letter (Attachment 3).

d.) A map showing the exact location of the proposed point of initial discharge. The final discharge location (i.e., Pacific Ocean) must be noted, as well as the path from the point of initial discharge to the final location of discharge into the receiving water (including the name/location of any conveyance systems, i.e., storm drain)

APPLICATION REQUIREMENTS INFORMATION SHEET
FOR
GENERAL NPDES PERMIT AUTHORIZATION
FOR GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES

2.) All applications, reports, and information submitted shall be signed by a corporate officer, principal executive officer, general partner or ranking elected official. In no case should a consultant or contractor sign any documents.

3.) All analysis shall be performed according to the appropriate U.S. EPA methods by a State certified laboratory.

4.) Submit filing fee as specified in Section F.2.C of the Application Requirements in Order No. 2001-96 (Attachment 4).

5.) **PLEASE SUBMIT THE ORIGINAL APPLICATION/ATTACHMENTS AND ONE COPY. SEND TO:**

Industrial Compliance Unit
ATTN: Ms. Whitney J. Ghoram
California Regional Water Quality
Control Board - San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92124

6.) Upon receipt of the above information, staff will review the application within 30 days of receipt. The Regional Board may request additional information that is pertinent to your particular project. Where no additional information is required, the Regional Board will issue Enrollment letter to the applicant to discharge pursuant to the applicable general permit.

If you have any questions regarding this process, please contact Ms. Whitney Ghoram at (858) 467-2967.

Attachments:

(1) General NPDES permit application forms and Order No. 2001-96
(2) Certification of compliance statement form
(3) Multiple dewatering site procedure letter
(4) Annual fee information letter

APPLICATION REQUIREMENTS INFORMATION SHEET
FOR
GENERAL NPDES PERMIT AUTHORIZATION
FOR GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES

(5) Article X-Section 2, California Constitution
(6) 40 CFR 131.12
(7) SWRCB Resolution No. 68-16
(8) 40 CFR 131.38 Priority Pollutants List
(9) Emergency Repair Report Form

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

GENERAL PERMIT AUTHORIZATION APPLICATION
FOR GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES
FOR USE WHEN APPLYING UNDER ORDER NOS. 2000-90 OR 2001-96

GENERAL INFORMATION

I. OWNER/AGENCY NAME:
ADDRESS: _____
CITY: _____ STATE: _____ ZIP: _____
CONTACT: _____ PHONE: _____
FAX: _____ EMAIL: _____

II. PROJECT/SITE NAME: _____
ADDRESS: _____
CITY: _____ STATE: _____ ZIP: _____
HYDROLOGIC SUBAREA NUMBER(S): _____
CONTACT: _____ PHONE: _____
FAX: _____ EMAIL: _____
CONSULTING FIRM: _____ PHONE: _____
CONSULTING FIRM CONTACT: _____

III. IS THIS A RENEWAL OF AN EXPIRING INDIVIDUAL NPDES PERMIT?
_____YES; ORDER NO. _____ NPDES PERMIT NO. CA _____
_____NO

IV. NATURE OF DEWATERING DISCHARGE: _____CONSTRUCTION
_____REMEDIATION
_____FOUNDATION

V. IS THIS A PERMANENT DISCHARGE? _____ YES _____ NO

SPECIFIC INFORMATION

VI. SPECIFIC INFORMATION:

1. THE PROJECT IS IN A _____ URBAN _____ RURAL AREA

2. MORE THAN ONE DEWATERING SITE IS PROPOSED _____ YES _____ NO
IF YES HOW MANY? _____ (SEE ATTACHMENT 3)

3. PROPOSED MAXIMUM DISCHARGE VOLUME (MGD) _____
AVERAGE DAILY FLOWRATE _____
BASIS FOR FLOW ESTIMATES _____
_____
_____

GROUNDWATE EXTRACTION GENERAL PERMIT AUTHORIZATION APPLICATION

4. THE DISCHARGE(S) WILL BE VIA A

   _____ STORM DRAIN

   _____ DIRECTLY INTO THE RECEIVING WATER.
   _____ SUBMERGED OR _____ ON THE SURFACE
   (LIST AND ILLUSTRATE ALL DISCHARGE POINTS)

   _____ THE RECEIVING WATER IS AN INLAND SURFACE WATER (FRESHWATER) TRIBUTARY TO A SALINE WATER BODY (STATE THE DISTANCE FROM THE DISCHARGE POINT TO THE SALINE WATER, AND WHETHER THERE IS ANY TIDAL INFLUENCE (MEASUREABLE SALINITY) AT THE POINT OF DISCHARGE).

5. LOCATION AND DESCRIPTION OF STORM DRAIN(S) OR CONVEYANCE SYSTEM(S) USED TO CONVEY THE DISCHARGE TO SURFACE WATERS.

6. NAME OF PUBLIC AGENCY OR ENTITY HAVING JURISDICTION OF STORM DRAIN(S) OR CONVEYANCE SYSTEM(S) USED TO DISCHARGE TO SURFACE WATERS WITHIN THE SAN DIEGO REGION _____

   PROOF OF NOTIFICATION TO THE PUBLIC AGENCY OR ENTITY RESPONSIBLE FOR THE STORM DRAIN(S) OR CONVEYANCE SYSTEM(S) USED TO CONVEY THE PROPOSED DISCHARGE TO SURFACE WATERS. (ATTACH)

7. TOTAL DURATION OF DEWATERING PROJECT _____

8. PROPOSED START DATE OF DEWATERING _____

9. PROPOSED RECEIVING WATER _____

10. RECEIVING WATER FLOWS SEASONALLY _____ YES _____ NO

11. DESCRIBE THE CONE/RADIUS OF INFLUENCE (ATTACH)

12. DESCRIBE THE HISTORICAL USE OF THE LAND WITHIN THE CONE/RADIUS OF INFLUENCE (ATTACH)

13. PROJECT PROXIMITY TO AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS)
    _____ YES _____ NO (IF YES, ATTACH A DESCRIPTION)

14. ATTACH SITE ASSESSMENT (IF ONE HAS BEEN DONE)

15. ANY KNOWN CONTAMINATION _____ YES _____ NO (IF YES, ATTACH A SOURCE DESCRIPTION AND LIST OF CONSTITUENTS)

GROUNDWATE EXTRACTION GENERAL PERMIT AUTHORIZATION APPLICATION

16. PROPOSED TREATMENT PROCESSES_____ YES _____ NO (IF YES, ATTACH THE FOLLOWING:)

    A. A report certifying the adequacy of each component of the treatment facilities or other type of contingency plan.

    B. The report shall also certify that:

        (1) all treatment facility startup and operation instruction manuals are adequate and available to operating personnel,

        (2) adequate treatment facility maintenance and testing (if treatment facilities are on "standby") schedules are included in the treatment facility operations manual,

        (3) treatment facilities and appurtenances can be fully operational, as designed, within 24 hours, and

        (4) influent and effluent sampling locations or ports are located in areas where samples representative of the waste stream to be monitored can be obtained.

    C. The design engineer shall affix his/her signature and engineering license number to this certification report.

17. DESCRIBE BEST MANAGEMENT PRACTICES (BMP) AND CONTINGENCY PLAN (ATTACH)

18. DISCUSS THE POTENTIAL USES OF THE EXTRACTED GROUNDWATERS, EFFORTS MADE TO ENSURE USE TO THE FULLEST EXTENT POSSIBLE AND COMPLIANCE WITH ARTICLE X, SECTION 2 OF THE CALIFORNIA CONSTITUTION (ATTACH) (SEE ATTACHMENT 5)

19. DISCUSS THAT DISPOSAL TO ALTERNATIVE RECEIVING WATERS IS NOT PRACTICABLE IF IT IS PROPOSED TO DISCHARGE TO AN ENCLOSED BAY, ESTUARY OR LAGOON (ATTACH)

20. STATEMENT OF COMPLIANCE WITH 40CFR 131.12 AND STATE WATER RESOURCES CONTOL BOARD RESOLUTION NO. 68-16 (ATTACH) (COLLECTIVELY ANTIDEGREDATION POLICIES) – (SEE ATTACHMENTS 6 AND 7)

21. SAMPLE AND ANALYZE THE GROUNDWATER TO BE EXTRACTED FOR ALL OF THOSE CONSTITUENTS, AS DETERMINED BY THE SAMPLING REQUIREMENT CRITERIA DESCRIBED IN THE APPLICABLE GENERAL PERMIT, FOR THE PROPOSED RECEIVING WATER TYPE (ATTACH DATA)

22. COMPLETE, SIGN AND RETURN THE ATTACHED CERTIFICATION OF COMPLIANCE STATEMENT ON RESPONSIBLE PARTY LETTERHEAD (NO CONTRACTOR/CONSULTANT)

GROUNDWATE EXTRACTION GENERAL PERMIT AUTHORIZATION APPLICATION

THE APPLICATION SHALL BE ACCOMPANIED BY THE FIRST ANNUAL FEE OF $1000.00. THE CHECK OR MONEY ORDER SHALL BE MADE PAYABLE TO THE "STATE WATER RESOURCES CONTROL BOARD."

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

PRINT YOUR FULL NAME: _____

_____ _____
TITLE SIGNATURE

_____ _____
AGENCY/COMPANY NAME DATE

RETURN THESE FORMS WITH ALL ATTACHMENTS TO:

INDUSTRIAL COMPLIANCE UNIT
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9174 Sky Park Court, Suite 100
SAN DIEGO, CA 92124
ATTN: MS. WHITNEY J. GHORAM
PHONE: (858) 467-2967

DO NOT WRITE BELOW THIS LINE. RWQCB STAFF USE ONLY
REV. DATE: _____ STATUS: COMPLETE/INCOMPLETE/WITHDRAWN
2000-90/2001-96 WDID#: 9_____ STAFF INITIALS: _____
COMMENTS: _____

_____

_____

_____

_____

_____

SUBMIT ON RESPONSIBLE PARTY LETTERHEAD

CERTIFICATION OF COMPLIANCE
WITH GENERAL GROUNDWATER EXTRACTION
WASTE DISCHARGE PERMIT

I have read general groundwater extraction waste discharge permit Order No. _____ and hereby certify that:

1. I understand the requirements of Order No. _____

2. The enclosed information describing my proposed groundwater extraction waste discharge is accurate and described a discharge that meets the requirements of Order No. _____, which is the applicable general groundwater extraction waste discharge permit.

3. I will comply with all terms, conditions, and requirements of Order No. _____.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____	_____
Signature	Owner/Agency
_____	_____
Name	Groundwater Discharge Project Name
_____	_____
Title	WDID Number
_____	_____
Date	File Number

California Regional Water Quality Control Board
San Diego Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb9/
9174 Sky Park Court, Suite 100,San Diego, California 92123
Phone (858) 467-2952 • FAX (858) 571-6972

Gray Davis
Governor

To: Dischargers subject to this Regional Board's Order Nos. 2000-90 and 2001-96, General Waste Discharge Requirements for Groundwater Extraction Waste Discharges

MULTIPLE GROUNDWATER EXTRACTION SITE PROJECT REPORTING REQUIREMENTS TO ENROLL TO DISCHARGE UNDER THE REGIONAL BOARD GENERAL GROUNDWATER DISCHARGE PERMITS (ORDER NOS. 2000-90 AND 2001-96)

The California Regional Water Quality Control Board – San Diego Region (Regional Board) has adopted two general NPDES permits, which regulate groundwater extraction waste discharges to surface waters in the San Diego Region. Regional Board staff has developed procedures for submittal of an application to enroll to discharge extracted groundwater to surface waters from multiple groundwater extraction sites that are part of a single project.

In order to enroll, the discharger must submit the following information (in addition to the information required by the applicable general permit, see Application Requirements (Section F) and attachments to the applicable general permit):

- Name and description of the project for which the groundwater extraction will be conducted.
- Number of groundwater extraction sites for which authorization is requested.
- Location of each groundwater extraction site (maps and written address/description).
- Anticipated dates of initiation and completion of groundwater extraction at each site.
- Anticipated flowrate to be discharged at each site.
- Name of the receiving water for each site.
- Locations of points of discharge to receiving waters.
- Distances, in linear feet, between each extraction site.

Multiple groundwater extraction site Enrollment letters will include the following additional stipulations.

- Identification of all sites that are covered.
- No additional sites may be added to the Enrollment.

If you have any questions, please contact Ms. Whitney Ghoram at (858) 467-2967.

Respectfully,

JOHN H. ROBERTUS
Executive Officer

ATTACHMENT 3

California Regional Water Quality Control Board
San Diego Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb9/
9174 Sky Park Court, Suite 100,San Diego, California 92123
Phone (858) 467-2952 • FAX (858) 571-6972

Gray Davis
Governor

To: Dischargers subject to this Regional Board's Order Nos. 2000-90 and 2001-96, General Waste Discharge Requirements for Groundwater Extraction Waste Discharges

ANNUAL WASTE DISCHARGE REQUIREMENTS FEES

Dischargers of groundwater extraction waste authorized to discharge under the terms and conditions of this Regional Board's Order Nos. 2000-90 or 2001-96 are subject to waste discharge requirement annual fees authorized by California Water Code Section 13260, which the SWRCB implements through regulations found at Section 2200 of Title 23 of the California Code of Regulations. Currently, the annual fee is $1,000.00 per year.

Invoices for these fees are sent out by the SWRCB on an annual basis. Failure to pay the invoiced fees may result in one or more of the following:

a. a penalty of up to $1,000.00 per day for each day the fee remains unpaid,
b. rescission of existing waste discharge requirements, and
c. prosecution in the courts as a misdemeanor.

If you have any questions regarding fees, please contact Ms. Whitney Ghoram at (858) 467-2967.

Respectfully,

JOHN H. ROBERTUS
Executive Officer

ATTACHMENT 4

Water Quantity and Quality Relationships

CONSTITUTION

ARTICLE X. Water
SECTION 2

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.

HISTORY:
Adopted: June 8, 1976.

40 CFR 131.12 – ANTIDEGRADATION POLICY.

(a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following:

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(2) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

(3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

(4) In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with section 316 of the Act.

STATE WATER RESOURCES CONTROL BOARD

RESOLUTION NO. 68-16

STATEMENT OF POLICY WITH RESPECT TO
MAINTAINING HIGH QUALITY OF WATERS IN CALIFORNIA

WHEREAS the California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the waters of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State; and

WHEREAS water quality control policies have been and are being adopted for waters of the State; and

WHEREAS the quality of some waters of the State is higher than that established by the adopted policies and it is the intent and purpose of this Board that such higher quality shall be maintained to the maximum extent possible consistent with the declaration of the Legislature;

NOW, THEREFORE, BE IT RESOLVED:

1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

3. In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to the Secretary of the Interior as part of California's water quality control policy submission.

CERTIFICATION

The undersigned, Executive Officer of the State Water Resources Control Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 24, 1968.

Dated: October 28, 1968

Kerry W. Mulligan
Executive Officer
State Water Resources
Control Board

40 CFR 131.38 – Priority Pollutants

Compound	Concentration (µg/L)
Antimony	
Arsenic	
Beryllium	
Cadmium	
Chromium (III)	
Chromium (VI)	
Copper	
Lead	
Mercury	
Nickel	
Selenium	
Silver	
Thallium	
Zinc	
Cyanide	
Asbestos	
2,3,7,8-TCDD (Dioxin)	
Acrolein	
Acrylonitrile	
Benzene	
Bromoform	
Carbon Tetrachloride	
Chlorobenzene	
Chlorodibromomethane	
Chloroethane	
2-Chloroethylvinyl Ether	
Chlroform	
Dichlorobromomethane	
1,1-Dichloroethane	
1,2-Dichloroethane	
1,1-Dichloroethylene	
1,2-Dichloropropane	
1,3-Dichloropropylene	
Ethylbenzene	
Methyl Bromide	
Methyl Chloride	
Methylene Chloride	
1,1,2,2-Tetrachloroethane	
Tetrachloroetheylene	
Toluene	
1,2-t-Dichloroethylene	

Compound	Concentration (µg/L)
1,1,1-Trichloroethane	
1,1,2-Trichloroethane	
Trichloroethylene	
Vinyl Chloride	
2-Chlorophenol	
2,4-Dichlorophenol	
2,4-Dimehtylphenol	
2-Methyl-4,6-Dinitrophenol	
2,4-Dinitrophenol	
2-Nitrophenol	
4-Nitrophenol	
3-Methyl-4-Chlorophenol	
Pentachlorophenol	
Phenol	
2,4,6-Trichlorophenol	
Acenaphthene	
Acenaphthylene	
Anthracene	
Benzidine	
Benzo(a)Anthracene	
Benzo(a)Pyrene	
Benzo(b)Fluoranthene	
Benzo(ghi)Perylene	
Benzo(k)luoranthene	
Bis(2-Chloroethoxy)Methane	
Bis(2-Chloroethyl)Ether	
Bis(2-Chloroisopropyl)Ether	
Bis(2-Ethylhexyl)Phthalate	
4-Bromophenyl Phenyl Ether	
Butylbenzyl Phthalate	
2-Chloronaphthalene	
4-Chlorophenyl Phenyl Ether	
Chrysene	
Dibenzo(a,h)Anthracene	
1,2-Dichlorobenzene	
1,3-Dichlorobenzene	
1,4-Dichlorobenzene	
3,3'-Dichlorobenzidine	
Diethyl Phthalate	
Dimethyl Phthalate	
Di-n-Butyl Phthalate	

Compound	Concentration (µg/L)
2,4-Dinitrotoluene	
Di-n-Octyl Phthalate	
1,2-Diphenylhydrazine	
Fluoranthene	
Fluorene	
Hexachlorobenzene	
Hexachlorobutadiene	
Hexachlorocyclopentadiene	
Hexachloroethane	
Indeno(1,2,3-cd) Pyrene	
Isophorone	
Naphthalene	
Nitrobenzene	
N-Nitrosodimethylamine	
N-Nitrosodi-n-Propylamine	
N-Nitrosodiphenylamine	
Chlordane	
Phenanthrene	
Pyrene	

Compound	Concentration (µg/L)
1,2,4-Trichlorobenzene	
Aldrin	
Alpha-BHC	
beta-BHC	
gamma-BHC	
delta-BHC	
4,4'-DDT	
4,4'-DDE	
4,4'-DDD	
Dieldrin	
alpha-Endosulfan	
beta-Endosulfan	
Endosulfan Sulfate	
Endrin	
Endrin Aldehyde	
Heptachlor	
Heptachlor Epoxide	
PCBs	
Toxaphene	

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

EMERGENCY REPAIR REPORT FORM

GENERAL INFORMATION

I. OWNER/AGENCY NAME:
ADDRESS: _____
CITY: _____ STATE: _____ ZIP: _____
CONTACT: _____ PHONE: _____
FAX: _____ EMAIL: _____

II. EMERGENCY REPAIR SITE: _____
ADDRESS/NEAREST CROSS STREETS: _____
CITY: _____ ZIP CODE: _____
THOMAS BROTHERS MAP PAGE/GRID NUMBER_____
CREW SUPERVISOR: _____ PHONE: _____
PRIMARY CONTACT: _____ PHONE: _____
FAX: _____EMAIL: _____

SPECIFIC INFORMATION

1. EMERGENCY REPAIR TYPE/DESCRIPTION (CIRCLE ONE): MAIN BREAK, SERVICE BREAK, OTHER

_____

_____

2. WAS THERE MORE THAN ONE GROUNDWATER DEWATERING DISCHARGE LOCATION __ YES __ NO IF YES, HOW MANY? _____

3. TOTAL VOLUME DISCHARGED (TOTAL GALLONS) _____

4. NAME OF PUBLIC AGENCY OR ENTITY HAVING JURISDICTION OF STORM DRAIN(S) OR CONVEYANCE SYSTEM(S) USED TO DISCHARGE_____

WAS THE CONVEYANCE SYSTEM OWNER CONTACTED? YES ___ NO ___

HOW WAS CONTACT MADE? ____PHONE ____FAX ____IN PERSON
INCLUDE PHONE NUMBER AND\OR NAME OF CONTACT

_____

ATTACH WRITTEN PROOF OF NOTIFICATION TO THE PUBLIC AGENCY OR ENTITY RESPONSIBLE FOR THE STORM DRAIN(S) OR CONVEYANCE SYSTEM(S) USED TO CONVEY THE PROPOSED DISCHARGE TO SURFACE WATERS WITH QUARTERLY REPORT.

Over to continue

CRWQCB-San Diego
EMERGENCY REPAIR REPORT FORM

5. TOTAL DURATION OF GROUNDWATER DISCHARGE _____

6. START DATE _____ TIME _____OF GROUNDWATER DISCHARGE

7. RECEIVING WATER NAME _____

8. DISCHARGE PROXIMITY TO AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS)
YES __ NO ___ (IF YES, CHECK ONE):

___ Heisler Park Ecological Reserve located in coastal waters near the City of Laguna Beach
___ San Diego-La Jolla Ecological Reserve
___ San Diego Marine Life Refuge, located in coastal waters near La Jolla

9. DID DISCHARGE POSE A THREAT TO AQUATIC LIFE OR HUMAN HEALTH?
YES ___ NO ___ NOT SURE ___

10. WAS A SAMPLE OF THE GROUNDWATER TAKEN? YES __ NO__
IF YES, Method of preservation? _____
Chain of Custody forms completed? _____
Sample delivery date: _____ Delivery Time: _____
Laboratory Name: _____

11. COMPLETE, SIGN AND RETURN THE CERTIFICATION OF COMPLIANCE STATEMENT BELOW. (NO CONTRACTOR/CONSULTANT SIGNATURES)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

PRINT YOUR FULL NAME: _____

_____ _____
TITLE SIGNATURE

_____ _____
AGENCY/COMPANY NAME DATE

RETURN THIS FORM WITH ALL ATTACHMENTS TO:

INDUSTRIAL COMPLIANCE UNIT
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9771 CLAIREMONT MESA BOULEVARD, SUITE A
SAN DIEGO, CA 92124
PHONE: (858) 467-2952
FAX: (858) 571-6972
E-MAIL: ghorw@rb9.swrcb.ca.gov or philj@rb9.swrcb.ca.gov

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

FACT SHEET
FOR
ORDER NO. 2001-96

NPDES NO. CAG919002

GENERAL
WASTE DISCHARGE REQUIREMENTS
FOR
GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES
FROM CONSTRUCTION, REMEDIATION, AND PERMANENT
GROUNDWATER EXTRACTION PROJECTS
TO
SURFACE WATERS WITHIN THE SAN DIEGO REGION
EXCEPT FOR SAN DIEGO BAY

I. CONTACT INFORMATION

Regional Water Quality Control Board Contact Person:

Whitney Ghoram
9174 Sky Park Court, Suite 100
San Diego, CA 92124-1324
Direct Phone: (858) 467-2967
Email: ghorw@rb9.swrcb.ca.gov
Front Office Phone: (858) 467-2952
Fax: (858) 571-6972
San Diego Regional Board Website: http://www.swrcb.ca.gov/rwqcb9/

II. THE EXISTING GENERAL PERMIT

A general permit, Order No. 96-41, *General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges From Construction and Remediation Projects to Surface Waters Within the San Diego Region Except for San Diego Bay*, (NPDES No. CAG919002), adopted June 13, 1996, regulates the discharge of groundwater extraction and similar wastes to surface waters within the San Diego Region except for San Diego Bay.

III. GENERAL DESCRIPTION

Extracted groundwater may contain pollutants which may be found in groundwaters as a result of decomposition of organic materials (e.g., hydrogen sulfide), leaking underground storage tanks and fuel lines, surface spills, sewage, past use of liquid waste impoundments, or the potential presence of nutrients (phosphorus and nitrogen compounds).

The San Diego Regional Water Quality Control Board (hereinafter Regional Board) is aware that petroleum pollutant plumes exist in groundwaters in areas subject to construction groundwater extraction. In addition to construction groundwater extraction discharges, groundwater remediation projects required by cleanup and abatement orders issued by the Regional Board may require the discharge of treated groundwater. In addition to petroleum products and solvents, groundwaters may contain elevated concentrations of other pollutants that could degrade surface waters. These other pollutants may include metals, nutrients (nitrogen and phosphorus), hydrogen sulfide, solids, and other inorganic and organic compounds.

Existing and proposed discharges of groundwater extraction waste from construction groundwater extraction, foundation groundwater extraction, and groundwater cleanup projects:

a) Result from similar operations (all involve extraction and discharge of groundwater);

b) Are the same type of waste (all are groundwater);

c) Require similar effluent limitations for the protection of the beneficial uses of the receiving waters;

d) Require similar monitoring; and

e) Are more appropriately regulated under a general permit rather than individual permits.

Order No. 96-41, applied to all groundwater extraction waste discharges of greater than 100,000 gpd. For purposes of renewing NPDES permit No. 96-41 (Tentative Order No. 2001-96), historical monitoring data has been reviewed. Based on the data review results, lack of complaints of adverse impacts to water quality and/or beneficial uses of the receiving waters, and lack of documentation of adverse impacts to water quality and/or beneficial uses of the receiving waters, discharges of groundwater to all receiving waters within the region except discharges to San Diego Bay less than 100,000 gallons per day and where no known contamination exists, probably will not have an adverse effect on the receiving water/environment.

IV. DISCHARGE DESCRIPTION

Groundwaters in some urban areas are known to be contaminated with petroleum products and solvents due to underground storage tank leaks and pipeline leaks. Discharges of groundwater to receiving waters within the region will be required to comply with the effluent limitations contained in this Order and protect the beneficial uses of the receiving waters.

Regional Board staff expects that a number of the groundwater project proponents will propose discharges to surface waters which will require National Pollutant Discharge Elimination System (NPDES) permits.

V. FACILITY DESCRIPTIONS - Treatment Facilities and Outfalls

This general NPDES permit contains effluent limitations which may require the application of 'best available treatment economically achievable' for the removal of petroleum products and organic compounds from each groundwater project proponent's discharge. The general NPDES permit will require each Enrollee to certify the adequacy of each component of treatment facilities or a contingency plan prior to initiating a discharge. Each Enrollee's certification report will contain a requirement-by-requirement analysis, based on accepted engineering practice, of how the contingency plan or process and physical design of the facilities will ensure compliance with this Order.

Groundwater may be discharged to a variety of receiving waters, storm drains, or other conveyance systems tributary to receiving waters within the region. Because outfalls are not designed to achieve maximum initial dilution and dispersion of discharges, initial dilution factors for discharges to inland surface waters, bays, estuaries, and lagoons are conservatively assumed to equal zero.

An initial dilution factor of three is assumed for discharges to the surf zone. The initial dilution factor is based on a preliminary dilution model submitted by Professor Gerhard H. Jirka, School of Civil and Environmental Engineering, Cornell University, for a dewatering project for the international treatment facility ocean outfall near Tijuana. This particular model assumes that:

a) Mixing of the dewatering is primarily controlled by wave-induced turbulence and longshore conditions;

b) 0.55 meter wave height with a 15 second period occurring with a 95 percent exceedance probability;

c) A longshore velocity of 5 to 10 centimeters per second; and

d) A near-shore beach slope of 3 percent.

The model results in an initial dilution ratio of six. Since the model does not represent topographic and wave conditions throughout the region, the initial dilution factor for discharges to surf zones was halved.

VI. RECEIVING WATERS

The *Comprehensive Water Quality Control Plan Report, San Diego Basin (9),* (Basin Plan) was adopted by this Regional Board on September 8, 1994, and subsequently approved by the State Water Resource Control Board (hereinafter SWRCB) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the SWRCB. The Basin Plan designates beneficial uses, narrative and numerical water quality objectives, and prohibitions which are applicable to the groundwater extraction waste discharges regulated under this Order.

The Basin Plan identifies the following beneficial uses of the surface waters in the San Diego Region to be protected (not all surface waters have all of the beneficial uses listed below):

- Municipal and domestic supply;
- Agricultural supply;
- Industrial service supply;
- Industrial process supply;
- Groundwater recharge;
- Freshwater replenishment;
- Navigation;
- Hydropower generation;
- Contact water recreation;
- Non-contact water recreation;
- Commercial and sport fishing;
- Warm freshwater habitat;
- Cold freshwater habitat;
- Preservation of Biological Habitats of Special Significance;
- Inland saline water habitat;
- Wildlife habitat;
- Rare, threatened, or endangered species;
- Marine habitat;
- Migration of aquatic organisms;
- Spawning, reproduction, and/or early development;
- Shellfish harvesting;
- Estuarine habitat; and
- Aquaculture

In order to protect these beneficial uses, the Basin Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharge to the bays/harbors, quality requirements for waste discharges (effluent water quality requirements), discharge prohibitions, and general provisions.

The SWRCB adopted a revised *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) on July 23, 1997. The Ocean Plan identifies the following beneficial uses of state ocean waters to be protected:

- Industrial water supply;
- Navigation;
- Aesthetic enjoyment;
- Water contact recreation;
- Preservation and enhancement of areas of special biological significance;
- Preservation and enhancement of rare and endangered species;
- Non-contact water recreation;
- Fish migration;
- Mariculture;
- Marine habitat;
- Fish spawning;
- Shellfish harvesting
- Ocean commercial and sport fishing;

The Ocean Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharge to the ocean, quality requirements for waste discharges (effluent water quality requirements), discharge prohibitions, and general provisions.

Beneficial uses of the bays and estuaries in the San Diego Region are similar to those of the Ocean Waters of the State. In order to protect the beneficial uses of the bays and estuaries, discharge specifications and receiving water quality limitations for some parameters, derived from the Ocean Plan, have been included in this Order for discharges to bays and estuaries (when open to the ocean and consisting of marine waters). If a lagoon or estuary is not open to the Pacific Ocean and consists of

fresh water, discharges shall comply with the requirements established in this Order for discharges to inland surface waters.

This region has continuous and ephemeral rivers and streams, bays, estuaries, lagoons, and approximately 85 miles of coastline. No receiving waters covered under the terms and conditions of this Order have been designated an outstanding national resource water by the SWRCB. However, Heisler Park Ecological Reserve, located in coastal waters near the City of Laguna Beach, the San Diego-La Jolla Ecological Reserve, and the San Diego Marine Life Refuge, located in coastal waters near La Jolla, a community of the City of San Diego, have been designated an Area of Special Biological Significance (ASBS) by the SWRCB. The Water Quality Control Plan for Ocean Waters of California (Ocean Plan) contains the following prohibitions applicable to ASBSs:

"Waste shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas."

Tentative Order No. 2001-96 prohibits the discharge of extraction waste to the above ASBSs.

VII. BASIS FOR WASTE DISCHARGE REQUIREMENTS

Section 402 of the federal Clean Water Act (CWA) gives the U.S. EPA the authority to issue NPDES permits for discharges into navigable waters and to prescribe conditions for such permits necessary to carry out the provisions of the CWA. In California, EPA has delegated this authority to the State of California.

The discharge of extracted groundwater threatens to cause or contribute to excursions above narrative water quality objectives as a result of the discharge of petroleum related compounds, metals, and organics. On May 26, 1989, the U.S. EPA enacted revisions to 40 CFR 122 (NPDES regulations). When a proposed discharged of a compound or chemical threatens to cause or contribute to an excursion above a State narrative water quality standard and a numeric water quality standard for the specific chemical has not been established, the NPDES revisions require the Regional Board to:

a) Establish an effluent limitation using a proposed State water quality objective or standard or an explicit State policy or regulation interpreting its narrative water quality objective which will protect and maintain water quality and designated beneficial uses of the receiving water;

b) Establish effluent limitations on a case-by-case basis, using EPA's water quality criteria published under 307(a) of the Federal Clean Water Act; or

c) Establish effluent limitations on an indicator parameter for the pollutants of concern (State Board memorandum dated November 3, 1989).

Groundwater pollutant plumes are often complex mixtures of hundreds of petroleum related compounds (e.g. gasoline contains over 200 chemical compounds) which makes complete chemical analyses very expensive and sometimes impracticable or impossible due to sample matrix interferences, constituent

masking, or the lack of standard analytical techniques. Since water quality criteria for many of the petroleum hydrocarbon compounds have not been proposed or established by the State or EPA, the permit will require monitoring groundwater discharged using “indicator constituents” for the detection and evaluation of complex mixtures of petroleum related compounds such as gasoline and solvents. The indicator constituents used for evaluating compliance with the narrative water quality criteria in the permit for discharges of gasoline related products are benzene, ethylbenzene, toluene, xylene, and total petroleum hydrocarbons, since it is believed that fuels have been adequately studied to justify limiting the analysis to these compounds.

On June 8, 1989, the SWRCB submitted an application to the U.S. EPA requesting revisions to its NPDES program in accordance with 40 CFR 123.62 and 403.10. The application included a request to add general permit authority to its approved NPDES program. States may request authority to issue general permits pursuant to 40 CFR 122.28. On September 22, 1989, the EPA, Region IX, approved the SWRCB’s request and granted authorization for the State's issuance of general NPDES permits.

40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same type of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.

In order to protect the beneficial uses of groundwaters and receiving waters in the region as a result of escalating numbers of groundwater extraction waste discharges, new permanent groundwater extraction waste discharges will be considered for enrollment on a case-by-case basis. The regulation of discharges from new permanent groundwater extraction operations to receiving waters will reduce the waste of groundwater as intended by Article X of the California Constitution and Section 275 of the California Water Code, and may reduce the potential number of new permanent discharges as intended by the federal Clean Water Act (Section 101(a)(1)) and the *Water Quality Control Policy for Enclosed Bays and Estuaries of California*.

The practice of permanent groundwater extraction for the purpose of protecting underground parking or other structures and the subsequent discharge of the groundwaters, without using the groundwaters to the "fullest extent to which they are capable, "as required by the California Constitution, is an unreasonable use of such waters, if the waters have designated beneficial uses. Article X, Section 2, of the California Constitution requires that "water resources of the State be put to beneficial use to the fullest extent of which they are capable and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.” Water Code Section 275 states, "The department and board shall take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state."

On March 2, 2000, the SWRCB, in Resolution No. 2000-15, adopted a Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy). The Policy implements the provisions promulgated by the U.S. Environmental Protection Agency (U.S. EPA) in the California Toxics Rule (CTR). Criteria for 126 priority pollutants are established by the CTR.

U.S. EPA promulgated this rule to fill a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. The Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the Clean Water Act.

The Policy was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the National Toxics Rule (NTR) and to the priority pollutant objectives established by Regional Boards in their water quality control plans (basin plans).

The U.S. EPA promulgated the final California Toxic Rule (CTR) on May 18, 2000, as required by Section 303(c)(2)(B) of the federal Clean Water Act. The CTR regulations, codified in 40 CFR 131.38, establish numeric criteria for water quality standards for priority toxic pollutants for the State of California.

The Policy establishes:

a) implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxic Rule (NTR) and the CTR, and for priority pollutant objectives established in the Basin Plan;

b) monitoring requirements for 2,3,7,8-TCDD (tetrachlorodibenzo-p-dioxin) equivalents; and

c) Chronic toxicity control provisions.

Pursuant to Section 5.3 of the Policy, the Regional Board may, after compliance with the California Environmental Quality Act (CEQA), allow short-term or seasonal exceptions from meeting the priority pollutant criteria/objectives if determined to be necessary to implement control measures either:

a) For resource or pest management (i.e., vector or weed control, pest eradication, or fishery management) conducted by public entities to fulfill statutory requirements, including, but not limited for, those in the California Fish and Game, Food and Agriculture, Health and Safety, and Harbors and Navigation codes; or

b) Regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code. Such categorical exceptions may also be granted for draining municipal storm water conveyances for cleaning or maintenance, or for draining water treatment facilities for cleaning or maintenance.

Section 5.3 of the Policy states that, where site-specific conditions in individual water bodies or watersheds differ sufficiently from statewide conditions and those differences cannot be addressed through other provisions of this policy the SWRCB may, in compliance with the California Environmental Quality Act (CEQA), subsequent to a public hearing, and with the concurrence of the

U.S. Environmental Protection Agency, grant an exception to meeting a priority pollutant criterion/objective or any other provision of this Policy where the State Board determines:

a) The exception will not compromise protection of enclosed bay, estuarine, and inland surface waters for beneficial uses; and

b) The public interest will be served.

Section 402(a)(1) of the Clean Water Act authorizes the issuance of best available technology effluent limitations in NPDES permits using best professional judgement. Using best professional judgement, best available technology economically achievable for the removal of volatile and semi-volatile organic compounds, and analytical practical quantitation levels is the basis for effluent limitations, for these compounds, in the Discharge Specifications of the Order. Thus, best available technology economically achievable for the removal of organic compounds is the basis for effluent limitations for xylene and other volatile hydrocarbons, and base/neutral compounds (not included in 40 CFR 131.38).

Water Quality Based Effluent Discharge Specifications (limits) were established for this groundwater extraction waste discharge permit, using 40 CFR 131.38 (*Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California)*, and the State's Implementation Policy. Water Quality Based Effluent Discharge Limits do not apply to discharges of extracted groundwater to the surf zone.

In general, there are two accepted technologies in use for the removal of synthetic organic compounds from water: aeration and adsorption. Removal efficiencies of volatile organic compounds through aeration processes can be estimated based on each compound's Henry's Law Coefficient (increasing coefficients indicate increasing volatility). Benzene is relatively soluble in water when compared to other fuel constituents and solvents. Any compound which has a Henry's Law coefficient greater than that of benzene will theoretically volatilize faster than benzene (assuming molecular or chemical interactions are nonexistent or minimized). Most of the compounds associated with fuel products and solvents commonly found in contaminated groundwater have Henry's Law Coefficients greater than that of benzene and will be efficiently removed through aeration if benzene is removed. The general consensus in the literature is that a 99 percent removal efficiency of volatile compounds with similar concentrations may be achieved through aeration processes. Based on best professional judgement, if benzene is removed from groundwater to levels approaching detection limits (practical quantitation level), other volatile organic compounds of concern (e.g., tetrachloroethylene, trichloroethylene, carbon tetrachloride, etc.) will be removed from the discharged groundwater as well.

Organic compounds which are not removed from groundwaters through aeration processes may be removed through adsorption processes (e.g., granular activated carbon). When properly designed and operated, most granular activated carbon systems can lower the concentration of synthetic organic contaminants to below detection limits.

In general, most synthetic organic contaminants can be removed from groundwaters using the aeration of adsorption processes or a combination thereof. Establishing effluent limitations in the practical quantitation limit range (1 to 5 µg/L) and monitoring requirements for BTEX as indicators of fuels, 40 CFR 136 listed volatile compounds as indicators of solvents, and base/neutral compounds as indicators

of diesel product, will, based on best professional judgement, ensure that compounds of concern are not discharged in levels which will cause excursions from narrative water quality criteria or objectives.

On January 1, 1998, Senate Bill (SB) 521 was passed. SB521 adds language, applicable to leaking underground storage tanks, to the Health & Safety Code as follows: "Section 25299.37.1. No closure letter pursuant to this chapter shall be issued unless the soil or groundwater, or both, where applicable, at the site have been tested for Methyl Tertiary Butyl Ether (MTBE) and the results of that testing are known to the Regional Board." Subsequently, on February 20, 1998, the San Diego Regional Board, Site Mitigation & Cleanup Unit, issued written notification to interested parties of *Mandatory MTBE Sampling For Underground Storage Tank (UST) Site Closures-Senate Bill (SB) 521*. The February 20, 1998, notification specifies that "For ground water impacted sites or soil sites that may threaten ground water, both soil and ground water sampling and analysis for MTBE will be required."

The Porter-Cologne Water Quality Control Act (January 1, 2000), Section 13272.1 and Section 13285, address discharges of MTBE. The California Department of Health Services (DHS) last update (March 9, 2000) of California's Maximum Contaminant Levels (MCLs) for MTBE states the following:

As established by the DHS, the primary MCL is 13 µg/L for MTBE and the secondary MCL is 5 µg/L.

The Order requires that groundwater discharged to bays and estuaries must not contain pollutants in excess of applicable receiving water quality objectives contained in 40 CFR 131.38 (*Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California),* or effluent limitations based on achievable concentrations using best available technology (BAT), whichever results in a lower effluent concentration. Effluent limitations based on BAT are equal to or less than the practical quantitation level. Since the assumed initial dilution factor for the discharge is zero, a discharge could not cause an excursion from numeric receiving water quality objectives for Tables 1 and 2 (*Groundwater Extraction Discharges to Bays and Harbors*, and *Groundwater Extraction Waste Discharges to Lagoons/Estuaries*), if the discharge is in compliance with the effluent limitations contained in the Order. Likewise, discharges to the surf zone cannot cause excursions from water quality objectives based on the preceding, and assuming that the dilution factor will always be greater than three.

For discharges to inland surface waters, effluent limitations are based on the EPA water quality criteria for the protection of aquatic species, the EPA water quality criteria for the protection of human health, effluent concentrations achievable using best available technology, 40 CFR 131.38 (*Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California),* or, in the cases where the receiving water is designated potable or municipal supply waters, maximum contaminant levels for municipal waters established by the California Department of Health Services. Since the assumed initial dilution factor for the discharge is zero and a mixing zone is not allowed, a discharge could not cause an excursion from numeric receiving water quality objectives if the discharge is in compliance with the effluent limitations contained in the Order.

No evidence that groundwaters in the region contain biocides, dioxins, or radiation has been found to date. However, discharges of pesticides in detectable concentrations to inland surface waters are prohibited by the *Comprehensive Water Quality Control Plan Report, San Diego Basin (9)* (Basin Plan), and by the Order.

In the adoption of waste discharge requirements and effluent limitations to protect the beneficial uses of waters of the State, Section 1300 et seq., of the California Water Code, authorizes the use of relevant water quality objectives or other criteria in the absence of numerical effluent concentration limitations in the Bays and Estuaries Policy.

Compliance with effluent limitations shall be determined as follows (pursuant to 40 CFR – 131.38):

a) Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

b) Dischargers shall be required to conduct a Pollutant Minimization Program (PMP) when there is evidence (e.g., sample results reported as "Detected, but Not Quantified" (DNQ) when the effluent limitation is less than the Method Detection Limit (MDL), sample results from analytical methods more sensitive than those methods included in the permit, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that the priority pollutant is present in the effluent above an effluent limitation and either:

    1) A sample result is reported as DNQ and the effluent limitation is less than the reported ML; or

    2) A sample result is reported as Non-Detect (ND) and the effluent limitation is less than the MDL.

When determining compliance with an Average Monthly Effluent Limitation (AMEL) and more than one sample result is available in a month, the discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

a) The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

b) The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the discharger conducts a PMP, the discharger shall not be deemed out of compliance.

VIII. ANTIDEGRADATION POLICIES

Pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (collectively "antidegradation policies"), the Regional Board shall ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies. At a minimum, permitting actions shall be consistent with the following:

a) Existing instream water uses and the level of water quality necessary to protect existing beneficial uses shall be maintained and protected;

b) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, the quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located;

c) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected; and

d) In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the Clean Water Act.

The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of the State and Federal "antidegradation" policies and has determined that:

1) The requirements, conditions, and Application Requirement F.2 of the Order which requires a discussion of compliance with antidegradation policies, and effluent limitations established in this Order for proposed discharges of groundwater to receiving waters, ensure that the existing beneficial uses and quality of the proposed receiving waters be maintained and protected;

2) Allowing groundwater extraction waste discharges to receiving waters is often necessary to allow groundwater remediation and accommodate economic development or infrastructure repair or replacement, important to the people of the communities of the San Diego region;

3) No receiving waters covered under the terms and conditions of this Order have been designated an outstanding national resource water by the SWRCB. However, Heisler Park Ecological Reserve, located in coastal waters near the City of Laguna Beach, the San Diego-La Jolla Ecological Reserve and the San Diego Marine Life Refuge, located in coastal waters near La Jolla, a community of the City of San Diego, have been designated an Area of Special Biological Significance (ASBS) by the SWRCB. The Ocean Plan contains the following prohibition applicable to ASBS:

"Waste shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas."

4) Thermal discharges potentially impairing water quality are not authorized under the terms and conditions of this Order, thus, Section 316 of the Clean Water Act is not applicable.

Discharge criteria established under Sections 301, 302, 304, 306, 307, and 403 of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), are applicable to discharges of groundwater extraction waste.

In order to show compliance with antidegradation policies, a potential Enrollee must submit the report required by Application Requirements F.2 of the Order, which requires discussing compliance with the antidegradation policies.

IX. EXPIRATION DATE OF NATIONAL POLLUTANT DISCHARGE ELLIMINATION SYSTEM (NPDES) PERMITS

The expiration date of Tentative Order No. 2001-96 is September 14, 2006.

X. WRITTEN COMMENTS

Interested persons are invited to submit written comments regarding the Tentative Order No. 2001-96. Comments should be submitted either in person or by mail to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd, Suite A
San Diego, California 92124-1331

All written comments received prior to September 7, 2001 will be considered in the formulation of final determinations.

XI. PUBLIC HEARING

The Tentative Order No. 2001-96 will be considered by the Regional Board at a public hearing to be held in the Rancho California Water District, District Board Room, 42135 Winchester Road, Temecula, California beginning at 9:00 a.m. on September 14, 2001.

XII. REVIEWS OF WASTE DISCHARGE REQUIREMENTS

Copies of the waste discharge requirements and other documents (other than those that the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying according to the following schedule (except holidays):

Monday and Thursday:	1:30 p.m. to 4:30 p.m.
Tuesday and Wednesday:	8:30 a.m. to 11:30 a.m. and 1:30 p.m. to 4:30 p.m.
Friday:	8:30 a.m. to 11:30 a.m.

XIII. AVAILABILITY OF INFORMATION

For further information regarding the Order or the public hearing, contact Ms. Whitney Ghoram in writing at the above address (see Section XI. Written Comments), by email at ghorw@rb9.swrcb.ca.gov, or by telephone at (858) 467-2967.